

**GRABER** | **DELIGHT IN  
EVERY DETAIL**

Graber Composite Shutters  
US Price Guide

January 2026

# COMPOSITE SHUTTERS

## Product Information Guide

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**GRABER**<sup>®</sup>

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(7/22) 22-347500

## **Specialty Styles**

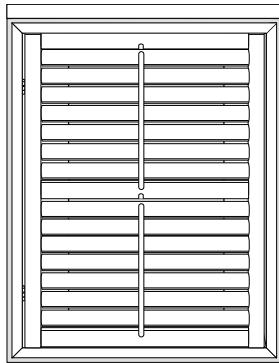
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## **General Information**

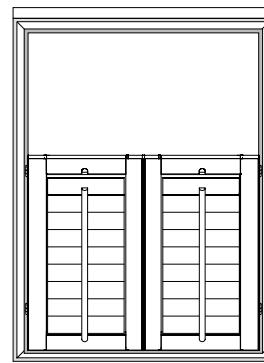
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## Features

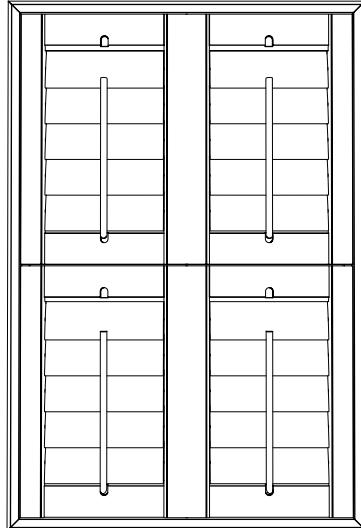
### Shutter Styles



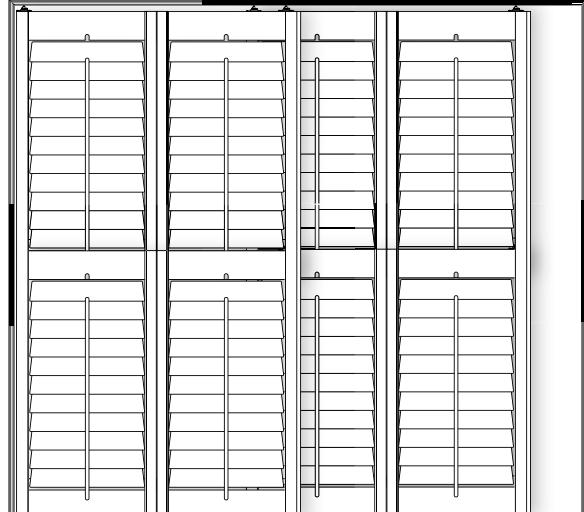
**Standard Panel:** A rectangular-shaped panel that can be installed using any frame style. Panel covers the entire window opening.



**Café:** Classic style covers the bottom part of the window, allowing light to enter while protecting your privacy. **Not recommended in composite; tops are not finished.**



**Double Hung:** Versatile style in which panels are mounted separately on top of each other, allowing the top and bottom to be opened independently. **Not recommended in composite; tops are not finished.**

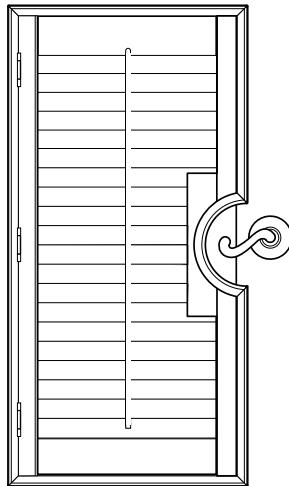


**Bypass Track System:** Shutter panels slide on double top tracks to open and close. The track system can be ordered with a box-out (side frame) or with the header mounted directly to a window casing or the ceiling. Ideal for patios or closet doors. Louvers must be closed to pass.

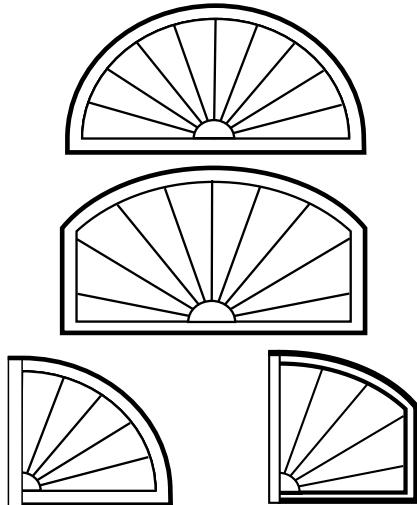
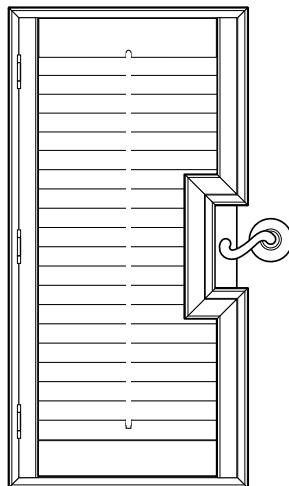
**NOTE:** Shutters do not block all light from entering the room. All shutters have moving parts. These parts have tolerance gaps that will allow some light to filter through the shutter.

## Features

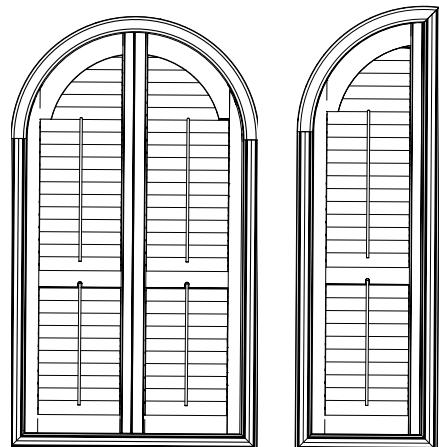
### Shutter Styles



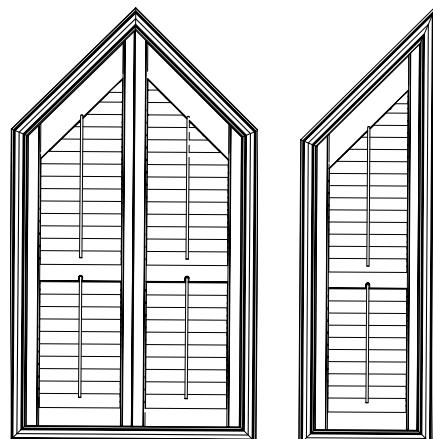
**French Doors:** Add the beauty of shutters to French doors. Curved or rectangular cut-out options complement contemporary door handles or traditional door knobs.



**Sunburst Arches:** Sunburst patterned louvers cover unique window silhouettes, such as eyebrow and elongated arches. Also available as  $\frac{1}{4}$  arches.



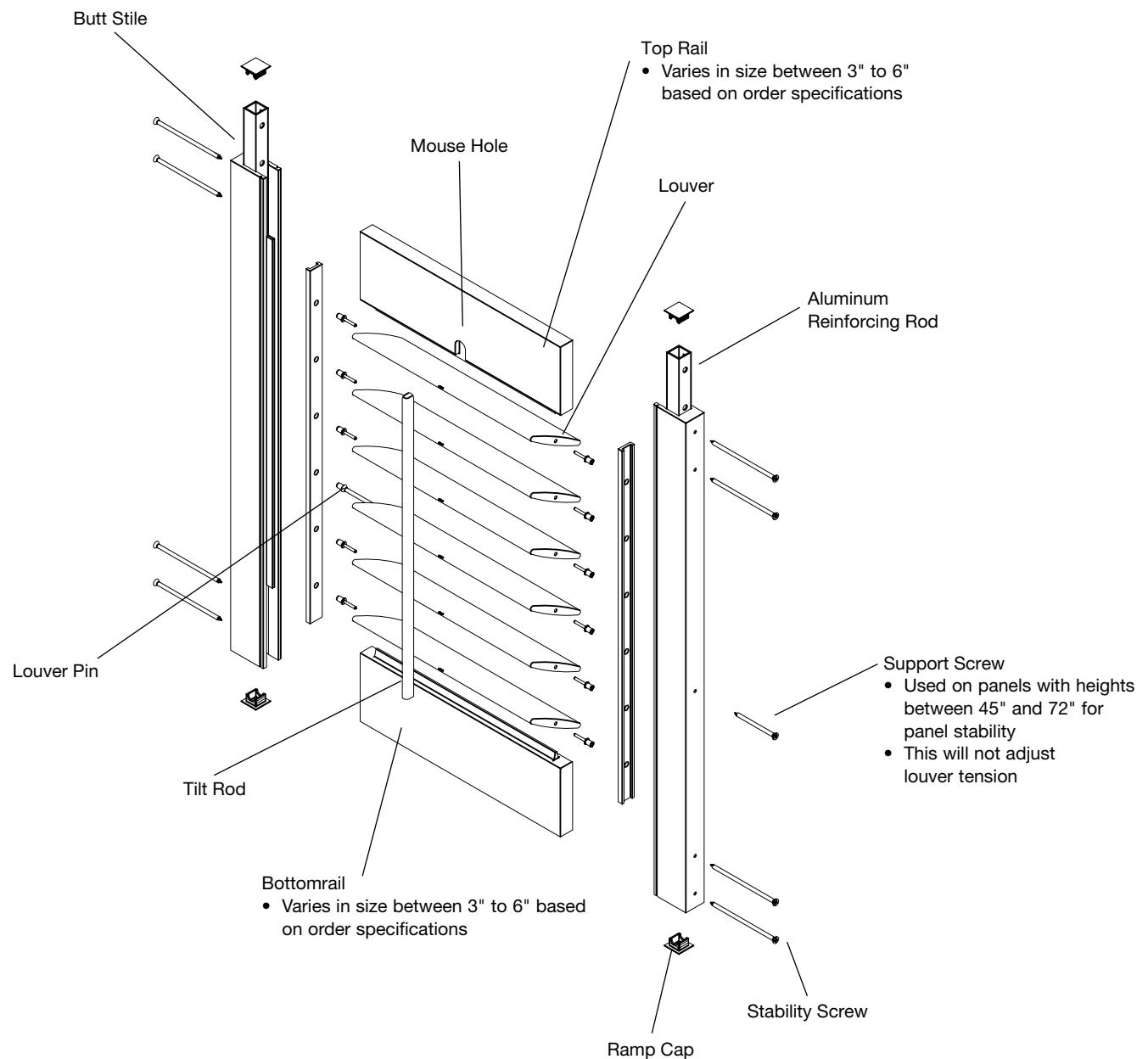
**Arched Panels:** Provide whole window solutions that fit the rounded shape of full arch windows perfectly. Available in full arch panel or  $\frac{1}{4}$  arch panel.



**Angled Top Panels:** Provide whole window solutions that accommodate slanted windows. Available in full angle panel or  $\frac{1}{2}$  angle panel.

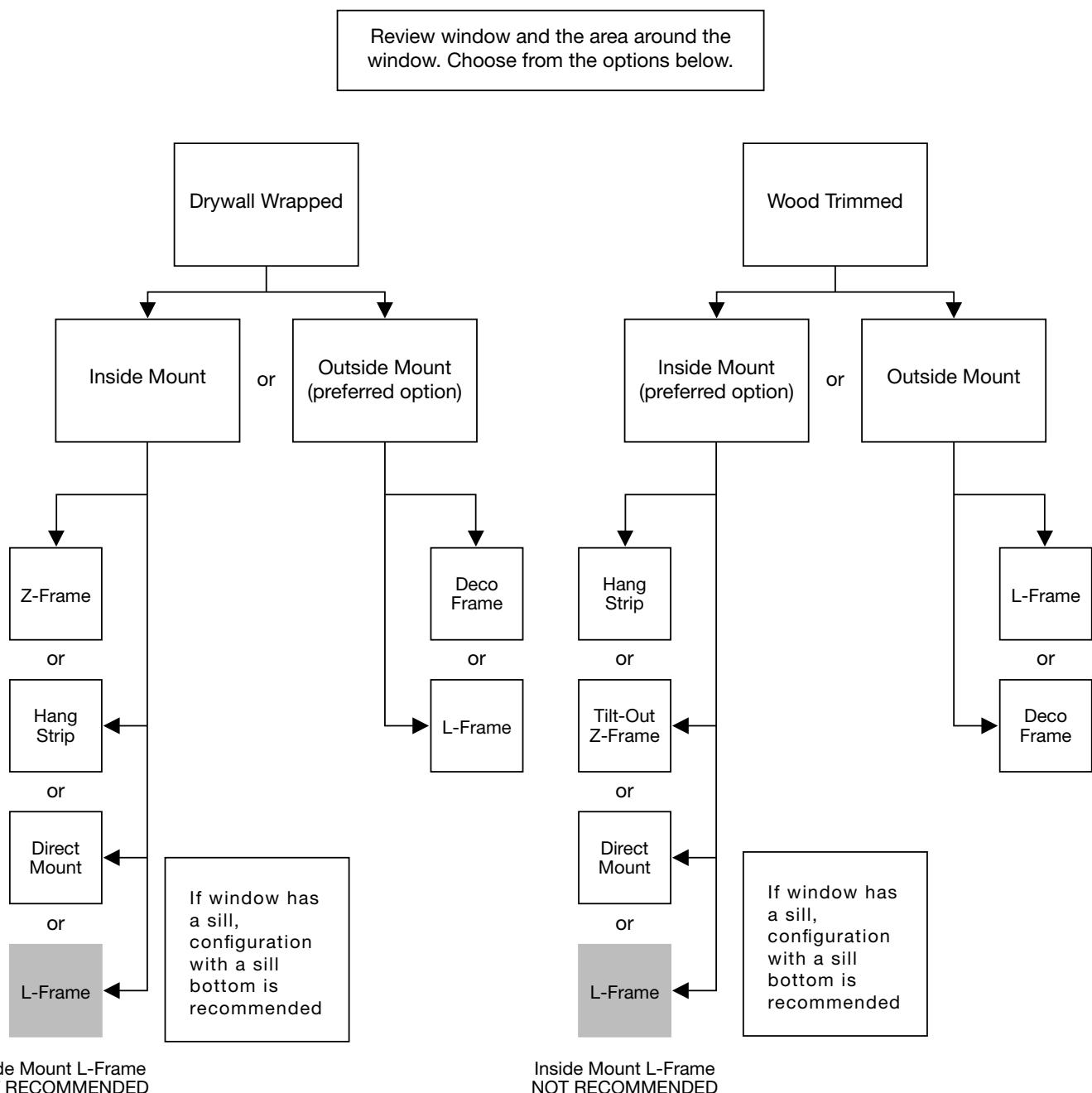
## Features

### Product Illustration



# Options

## Frame Type Decision Tree



Inside Mount L-Frame  
NOT RECOMMENDED

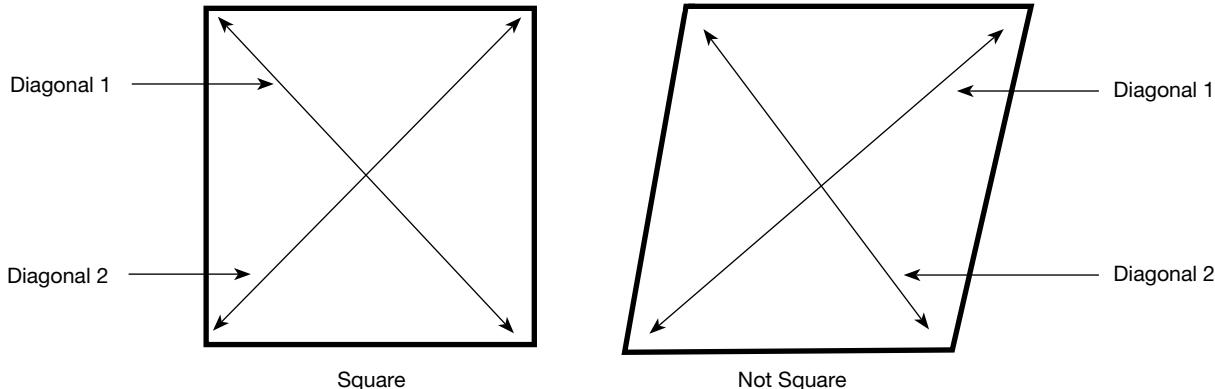
Inside Mount L-Frame  
NOT RECOMMENDED

# Options

## Measuring Standard Composite Shutters

### Confirm that the window is square.

Measure the diagonals. If the difference between the two diagonal measurements in the same window is greater than  $\frac{1}{4}$ ", an outside mount shutter is required.

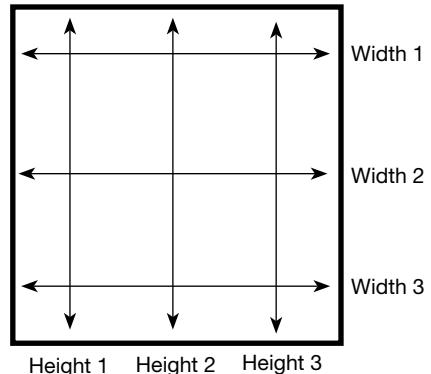


### Window Opening Measurement

#### Inside Mount with Hang Strips, Direct Mount, Z-Frame, Tilt-Out Z-Frame

- Measure the width at three points and the height at three points
- Use the **SMALLEST** width and height measurements

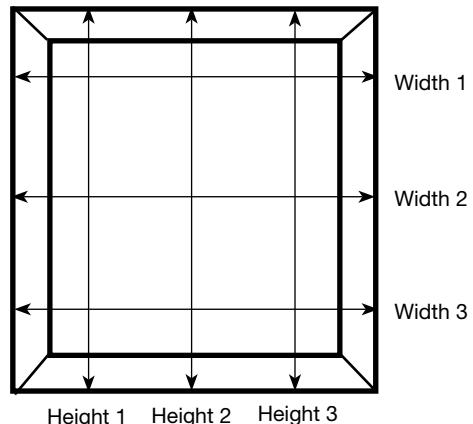
**NOTE:** Factory makes no allowances/deductions for tilt-out Z-frame.



### Frame-to-Frame Measurement

#### Required for L-Frame and Traditional Deco Frame

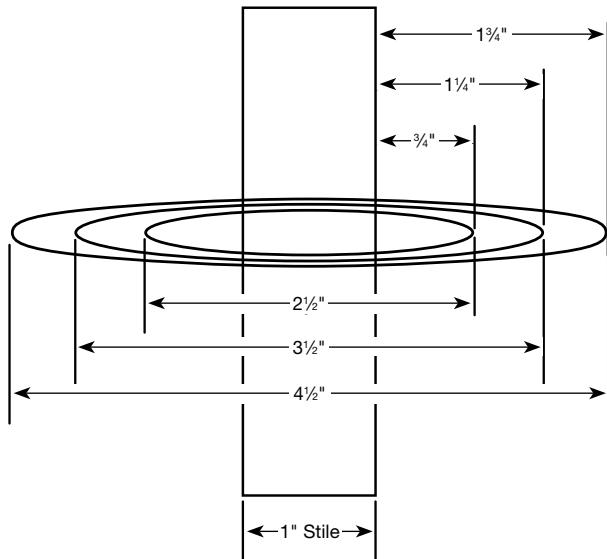
- Place a sample of the L-frame or traditional deco frame on the window frame or wall to determine frame-to-frame placement
- Measure frame-to-frame width at three points and frame-to-frame height at three points
- Use the **LARGEST** width and height measurements



**HELPFUL HINT:** If shutters are in the same room and/or side by side, shutters must be ordered at the same height to ensure that rail height, divider rail location, louver count, and hinge quantity will match.

# Options

## Louver Options



Minimum Clearance Needed from Back Panel Surface		
Louver Size (inches)	Standard Tilt (inches)	Hide-A-Tilt™ (inches)
2 1/2	3/4	1 1/8
3 1/2	1 1/4	1 5/8
4 1/2	1 1/4	2 1/8

**NOTE:** Hide-A-Tilt requires an additional  $\frac{3}{8}$ " window clearance.

Minimum Clearance Needed by Louver Size and Frame Type Standard Tilt (Hide-A-Tilt)						
Louver Size (inches)	Direct Mount (inches)	Hang Strip (inches)	Standard Z- and Craftsman Z-Frames (inches)	Signature Z-Frame (inches)	2" L-Frame (inches)	Traditional Deco and Tilt-Out Z-Frames (inches)
2 1/2	1 1/4 (2 1/8)	2 5/16 (2 11/16)	1 1/8 (1 1/4)	1 5/16 (1 11/16)	0 (3/8)	1/4 (5/8)
3 1/2	2 1/4 (2 5/8)	2 5/16 (2 11/16)	1 7/8 (2 1/4)	1 13/16 (2 3/16)	1/2 (7/8)	3/4 (1 1/8)
4 1/2	2 3/4 (3 1/8)	2 3/4 (3 1/8)	2 7/8 (2 3/4)	2 5/16 (2 11/16)	1 (1 1/8)	1 1/4 (1 5/8)

### 2 1/2" Louver

- Traditional in style
- Minimal window depth needed
- Shutters are focal point of the room

### 3 1/2" Louver

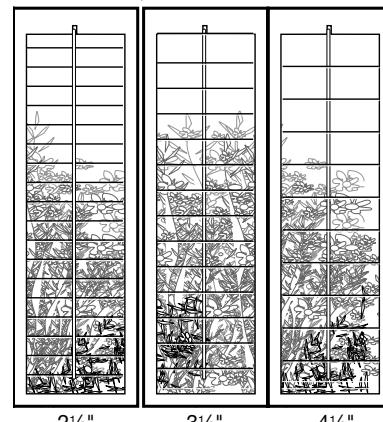
- Most popular louver size
- Offers more visibility and light control than 2 1/2" louver

### 4 1/2" Louver

- Provides the greatest visibility through the open louvers
- Looks most proportionate in a larger window; view beyond the window becomes more important
- Louvers almost disappear when open

**NOTE:** Shutters ordered with panels over 30" wide have reinforced louvers.

### Composite Louver Sizes



2 1/2"

3 1/2"

4 1/2"

# Options

## Color Options: Refer to Price List

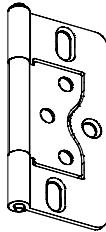
## Hardware Options

Select the hardware color that best fits your décor.

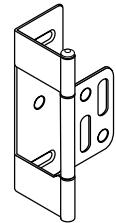
### Hinge Colors

- Antique Brass
- Off White
- Oil Rubbed Bronze
- Satin Nickel
- Stainless Steel\*
- White

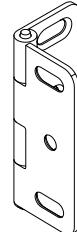
\*Surcharge, see price charts



Frame Hinge



Hang Strip Hinge



Bifold Hinge

### Hide-A-Tilt™ Colors

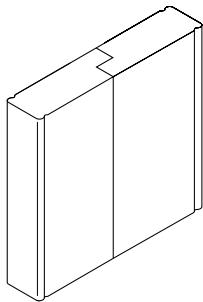
(see color coordination chart in “Tilt Options: Hide-A-Tilt” section)

- Steel Grey
- White

### NOTES:

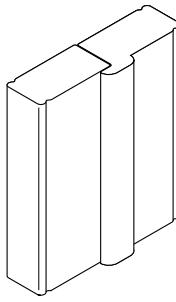
1. Hide-A-Tilt color will default based on shutter color but can be changed at time of order. For specialty shutters, Hide-A-Tilt color will default based on shutter color, either white or off-white, and cannot be changed at time of order.
2. Bifold hinges are seen from the street side. The bifold hinge color will default to White or Off White to coordinate with composite color regardless of hardware color ordered.

## Panel Overlap Options



### Rabbet Stile Panel Overlap

- Factory standard
- Right over left overlap only
- Left over right overlap not available



### Astragal Stile Panel Overlap

- No charge option
- Right over left overlap standard
- Left over right overlap optional
- Astragal will automatically be used between bifold panels

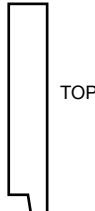
## Tilt Type Options: Overview

- We offer four tilt type options – two with 1-way louver closure (up only) and two with 2-way louver closure (up and down).

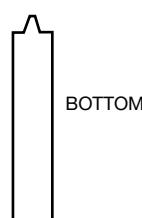
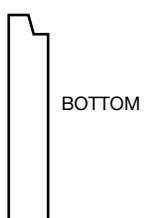
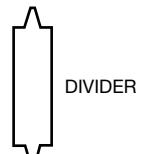
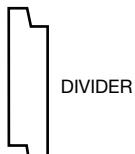
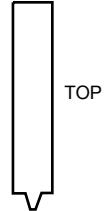
1. Front Tilt 1-Way Closure (Up Only)
2. Front Tilt 2-Way Closure (Up/Down)
3. Hidden Tilt 1-Way Closure (Up Only)
4. Hidden Tilt 2-Way Closure (Up/Down)

- Different rails are used for 1-way closure vs. 2-way closure, as shown to the right.
- Shutter panels made with 1-way closure (up only) will have the tightest louver to louver closure.

RAILS FOR  
1-WAY  
CLOSURE  
(UP ONLY)



RAILS FOR  
2-WAY  
CLOSURE  
(UP/DOWN)



## Options

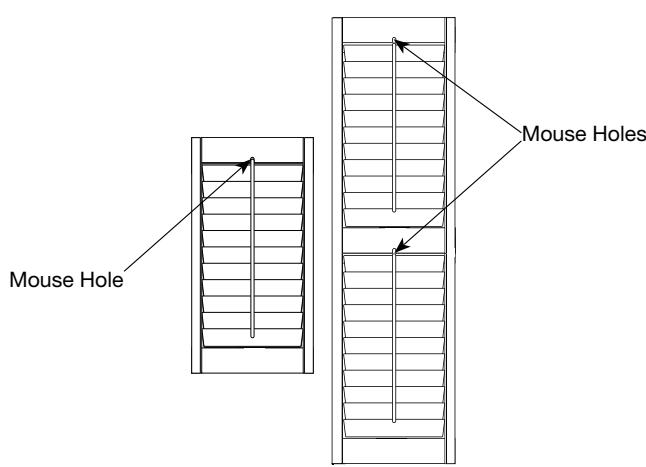
### Tilt Options: Front Tilt

A traditional tilt bar is located on the front center of the panel and is connected to the edge of the louvers with staples.

**Important:** The purpose of the tilt bar is to provide louver alignment, not for changing louver position or opening the shutter panel. Louvers should be opened/closed by grabbing onto one louver directly and the remaining louvers will follow.

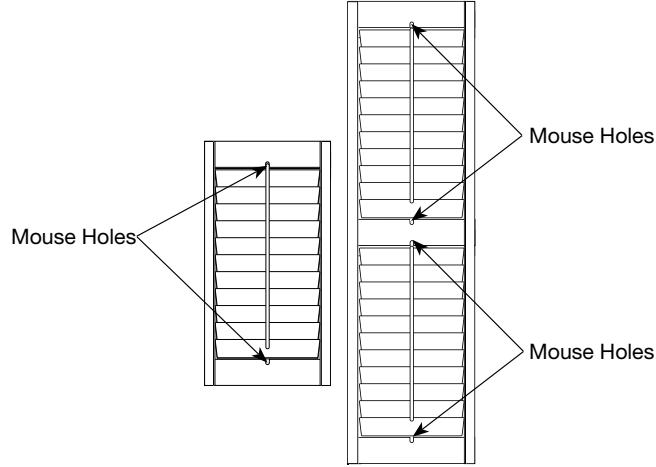
**1-Way Closure (Up Only)** – Panels have a mouse hole on the rails above each louver section

- Panels with 1-way louver closure will have the tightest louver to louver closure, but in the upwards direction only

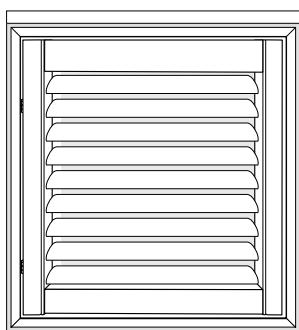
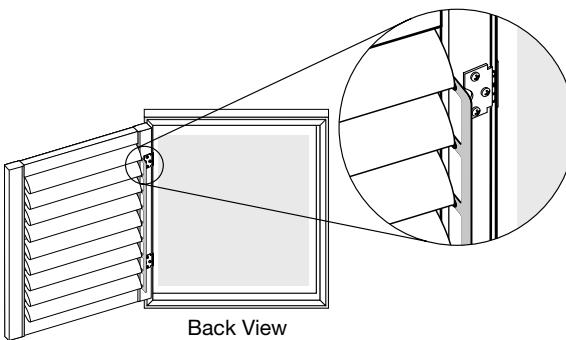


**2-Way Closure (Up/Down)** – Panels have mouse holes on the rails above and below each louver section

- Shutters with 2-way louver closure will allow the louvers to be closed up and down; however, louver to louver light gaps will be larger
- Shutters with 2-way louver closure will have better closure when louvers are in the upwards position vs. downwards position



### Tilt Options: Hide-A-Tilt™



- Available as 1-Way Closure (Up Only) and 2-Way Closure (Up/Down)
- Shutters with 1-way louver closure will have the tightest louver to louver closure, but in the upwards direction only
- Shutters with 2-way louver closure will allow the louvers to be closed up and down; however, louver to louver light gaps will be larger
- Shutters with 2-way louver closure will have better closure when louvers are in the upwards position vs. downwards position

**Hide-A-Tilt option** offers the tilt mechanism in the back of the shutter panel, eliminating the traditional tilt bar and creating an unobstructed view, as well as a clean linear appearance. A thin steel tilt bar is attached to the louvers in the rear of the panel. Operation of the shutter is as simple as moving one louver into position; all of the other louvers will follow.

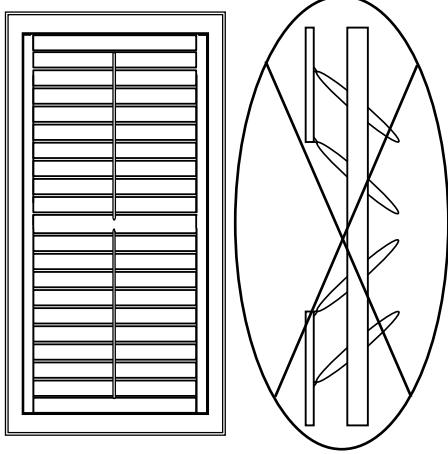
- Hide-A-Tilt is mounted on hinge side for standard shutters and attached with screws
- No mouse hole in the panel
- Hide-A-Tilt bar color will default based on shutter color (see chart below) but can be manually changed at time of order
- Hide-A-Tilt requires an additional  $\frac{3}{8}$ " window clearance

Color Coordination Chart	
Shutter Color	Default Hide-A-Tilt Color
Base White (2051)	White
Creamy White (2729)	Steel Grey
Silk White (2922)	White

**NOTE:** For specialty shapes; Hide-A-Tilt™ bar will be matched to the shutter color, either white or gray. When panels exceed 52" in height, Hide-A-Tilt™ will need to be split.

# Options

## Tilt Options: Split Tilt



**NOTE:** Upper and lower louvers cannot be positioned at opposing angles because the edges of the louvers will touch.

**Top and bottom rails may vary or be unequal due to requested locations and louver spacing.**

### Split Tilt

Splits one large louver set into two individually operated louver sets by attaching two separate tilt bars.

To measure split tilt, use bottom of frame reference point to desired split location. See measuring instructions in "Measuring Divider Rail or Split Tilt Location" section.

#### Split Tilt—Front Tilt Bar, No Divider Rail

- Split tilt can be requested centered or ordered location
- 3½" louver exact to ordered location
- 4½" louver may have up to 2" tolerance to ordered location
- 2½" louver not available (the front tilt will not allow the louvers to function properly)

#### Split Tilt—Hide-A-Tilt Bar, No Divider Rail

- Split tilt can be requested centered or ordered location
- 2½" and 3½" louver exact to ordered location
- 4½" louver may have up to 2" tolerance to ordered location

#### Split Tilt—Front Tilt Bar AND Divider Rail

- 3½" louver may cause split tilt to have up to 2" tolerance to ordered location when combined with a divider rail; divider rail location will be exact
- 4½" louver may cause split tilt AND divider rail to have up to 2" tolerance to ordered location
- Split tilt can only be requested above OR below divider rail, not both
- Split tilt can be requested centered or ordered location
- 2½" louver not available (the front tilt will not allow the louvers to function properly)

#### Split Tilt—Hide-A-Tilt Bar AND Divider Rail

- 2½" and 3½" may cause split tilt to have up to 2" tolerance to ordered location when combined with a divider rail; divider rail location will be exact
- 4½" louver may cause split tilt AND divider rail to have up to 2" tolerance to ordered location
- Split tilt can only be requested above OR below divider rail, not both
- Split tilt can be requested centered or ordered location

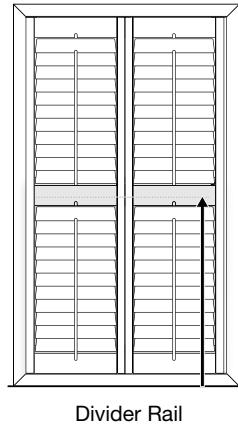
# Options

## Divider Rail Requirements

Splits one large louver set into two individually operated louver sets by adding a horizontal rail. It is used to add strength to tall panels or add a decorative element.

- Divider rails are required over 72" height for added strength
- Divider rail can be requested (when not required) for design purposes
- A 3" divider rail is used with all louver sizes
- Minimum louver set between rails is two louvers
- Maximum one divider rail is available per shutter
- Divider rails for 2½" and 3½" louvers are exact to ordered location
- Divider rails for 4½" louvers may have up to 2" tolerance to ordered location to achieve uniform louver spacing
- All arch/angle panels may have up to 2" tolerance to ordered location

**IMPORTANT INFORMATION:** Top and bottom rail sizes may vary and/or be unequal in size due to a specified divider rail location. Rail sizes will vary from 3" to 6" based on order specifications. **If shutters are in the same room and/or side by side, it is critical to order them at the same exact height to ensure divider rail locations and rail heights match.** Please reference the Louver Count/Rail Height Calculator on Graberdirect.com to ensure satisfaction before order is placed.



Divider Rail

## Measuring Divider Rail or Split Tilt Location

Always start from the bottom point of measure to center of the desired divider rail or split tilt location.

To measure frame-to-frame, measure from the bottom of the shutter frame up to the center of the desired rail or split tilt location.

To measure window opening, measure from the sill or bottom of the window opening to the center of the desired rail or split tilt location.

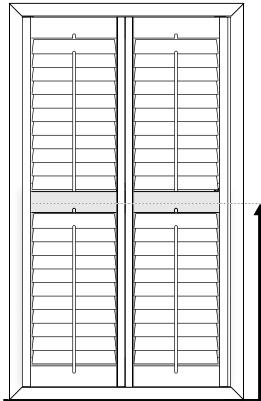
### IMPORTANT CONSIDERATIONS

**Rail sizes**—Top and bottom rail sizes may vary in the same shutter due to requested location of the divider rail/split tilt and louver spacing.

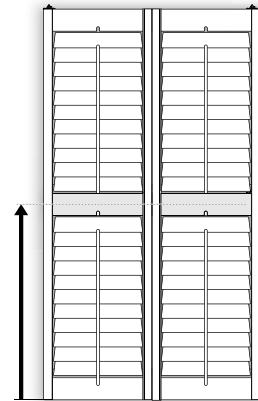
**Same room shutters**—If shutters are in the same room, they should be ordered with the same height and options to ensure rail sizes match. Varying heights will result in inconsistent rail sizes and/or louver counts.

- If ordering direct mount or hang strip, you may request to align uneven shutters at time of order.

**NOTE:** Divider rail/split tilt locations may fluctuate if ordering rail alignment.



Frame-to-Frame



Window Opening

## Measuring T-Post Locations

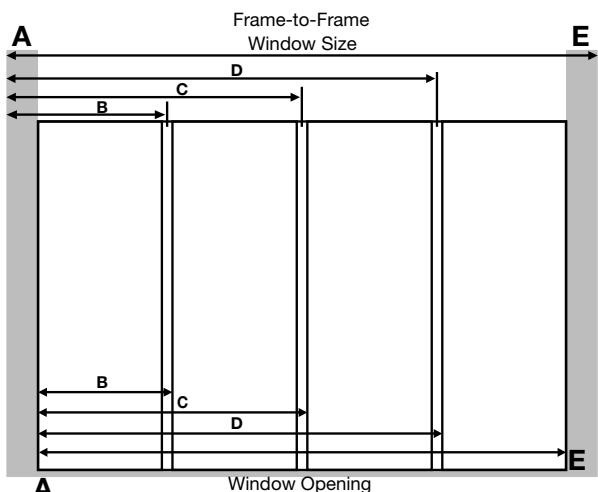
Always start from the left point of measure type to the center of the desired T-post location.

To measure frame-to-frame, measure from the left of the shutter frame to the center of the desired T-post location.

To measure window opening, measure from the left inside of the window opening to the center of the desired T-post location.

If there is more than one T-post, measure from the left of measure type to the center of first T-post location, then measure from the left of measure type over to the center of the second T-post location, etc. EXAMPLE: A-B, A-C, A-D

**ALWAYS** measure from the same point the frame was measured.  
**EXAMPLE:** If measuring for L-frame, frame-to-frame measure type, A is the outside edge of the L-frame.



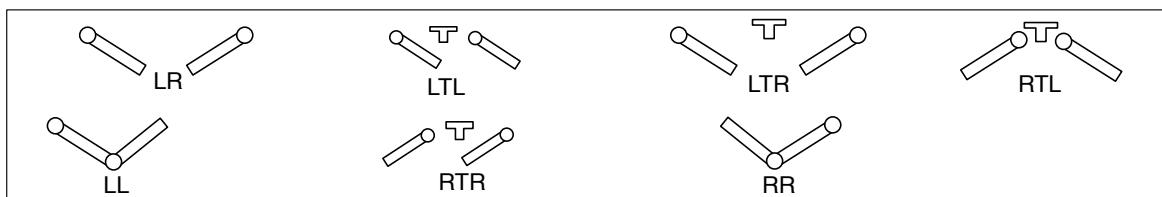
## Options

### Standard Shutters Composite Panel Configurations (only configurations available)

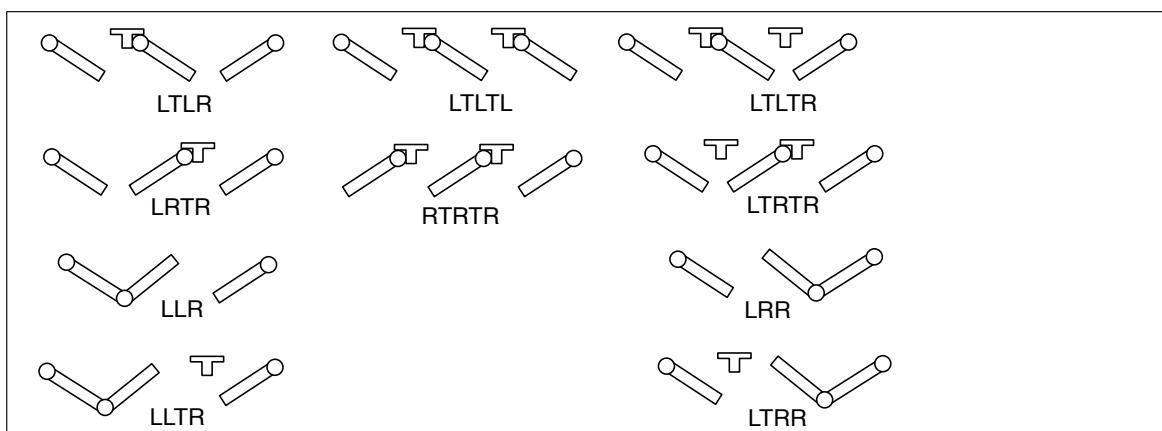
Single Panel



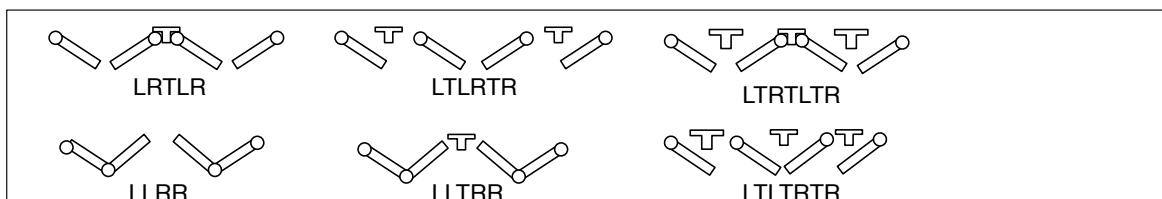
Two Panels



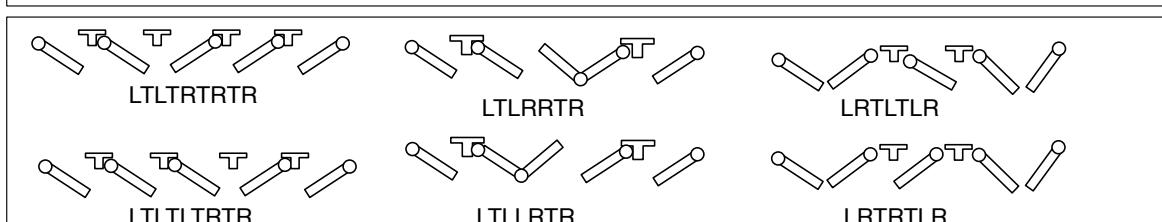
Three Panels



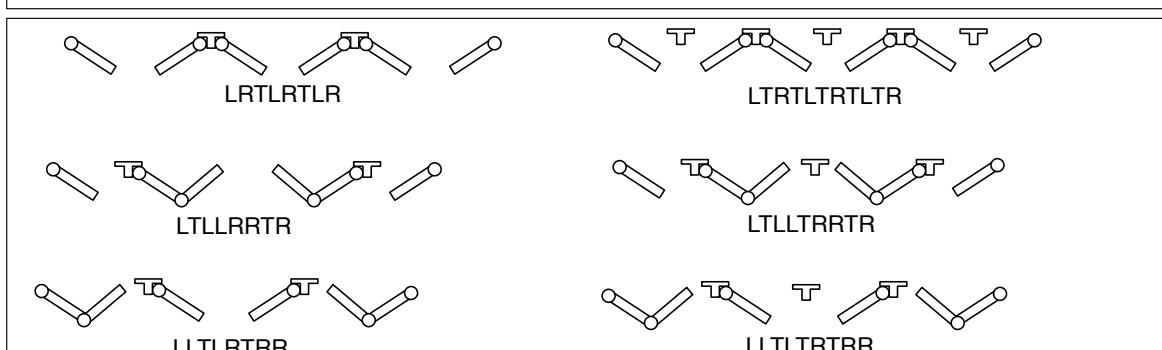
Four Panels



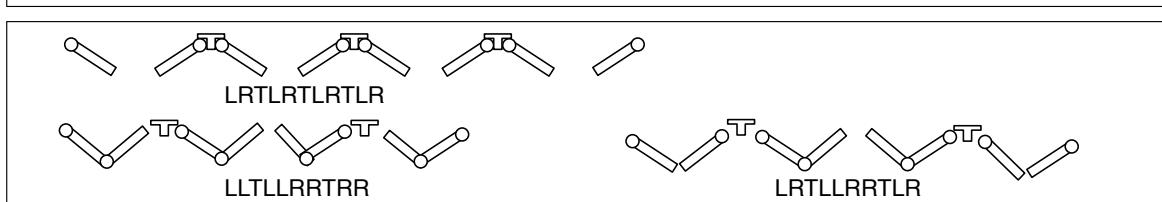
Five Panels



Six Panels



Eight Panels

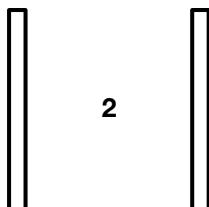


## Options

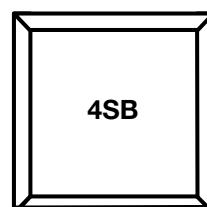
### Composite Frame Configurations

#### 2-Sided

Hang strip and direct mount with inside mount is available only in 2-sided frame (vertical). Light block included at no charge.

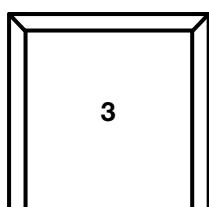


#### 4-Sided with Sill Bottom

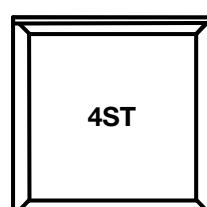


#### 3-Sided

Light block included at no charge.

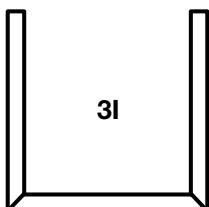


#### 4-Sided with Sill Top

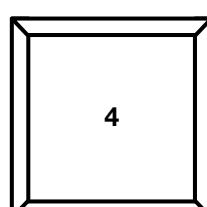


#### 3-Sided Inverted

Light block included at no charge.



#### 4-Sided

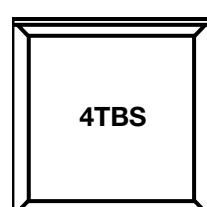


#### 3-Sided with Sill Top

Light block included at no charge.

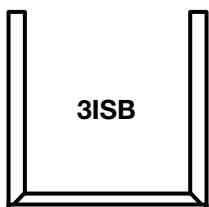


#### 4-Sided with Sill Top and Bottom

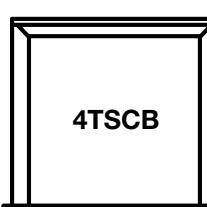


#### 3-Sided Inverted with Sill Bottom

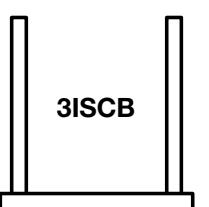
Light block included at no charge.



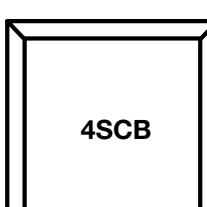
#### 4-Sided with Sill Top and Sill Cap Bottom



#### 3-Sided Inverted with Sill Cap Bottom



#### 4-Sided with Sill Cap Bottom



**NOTE:** Direct mount includes four light blocks at no charge.

### Installation Hardware

#### Included with order

- Hinge pins
- Hoffman keys
- Installation screws (hinge, mounting, etc.)
- T-post L-bracket (if required)

#### Available upon request—contact customer service

- Hinge shims
- Extra louver pins
- Extra screws
- Screw caps (cover exposed screw heads)

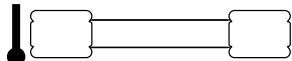
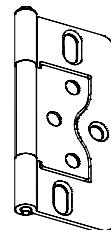
# Options

## Frame Product Detail

**NOTE:** Frames larger than 115" ordered size require splicing.

### Direct Mount

- Inside mount and window opening measure only
- Panel is prehinged
- Four light blocks included
- Factory automatically makes deductions: Width— $\frac{1}{4}$ ", Height— $\frac{1}{4}$ "
- Must be installed with hinge barrel only outside the window opening

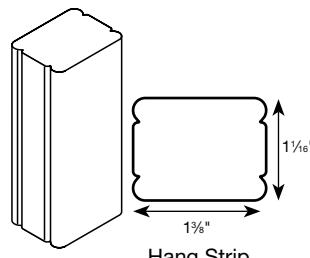


**EXAMPLE: 1-panel L**

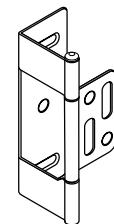
Frame Hinge

### Hang Strip

- Inside mount and window opening measure only
- Includes adjustable wraparound hinge for easy installation
- Panel and hang strip are prehinged
- Hang strip is predrilled
- Top and bottom light blocks included
- Factory automatically makes deductions: Width— $\frac{1}{4}$ ", Height— $\frac{1}{4}$ "
- Must be installed with hinge barrel only outside the window opening



Hang Strip



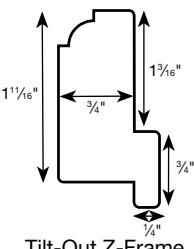
Hang Strip Hinge



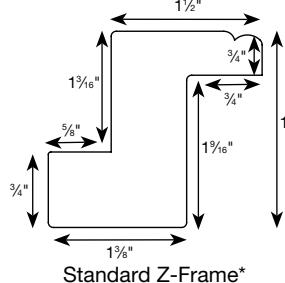
**EXAMPLE: 1-panel L**

### Z-Frames

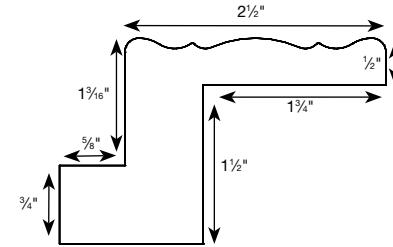
- Inside mount and window opening measure only
- Panel and frame are prehinged
- Frame is not predrilled
- Standard, Signature, and Craftsman—factory automatically makes deductions: Width— $\frac{5}{16}$ "; Height, see chart in "Deductions for Frame Allowances" section
- No deduction taken on tilt-out Z-frame; measurement is the same as the window opening, see "Proper Application of the Tilt-Out Z-Frame" section



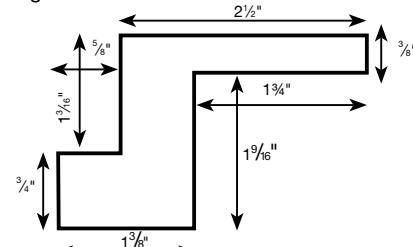
Tilt-Out Z-Frame



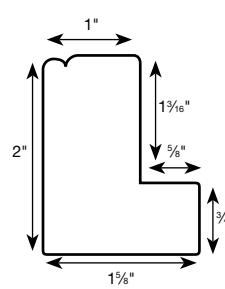
Standard Z-Frame\*



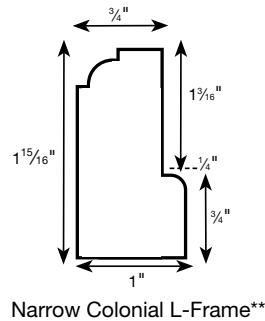
Signature Z-Frame\*



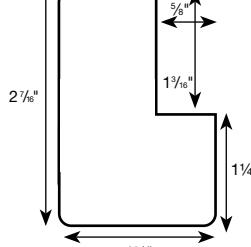
Craftsman Z-Frame\*\*



2" Standard L-Frame\*



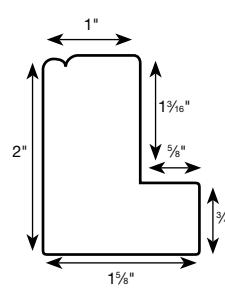
Narrow Colonial L-Frame\*\*



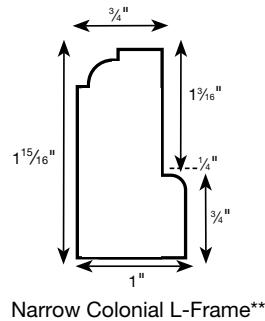
2 1/2" Extended Standard L-Frame\*\*

### L-Frames

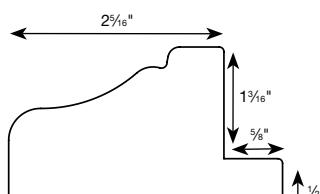
- Recommended outside mount
- Frame-to-frame measure only
- Panel and frame are prehinged
- Frame is not predrilled
- No factory deduction made
  - If using for inside mount or in a tight spot, installer must make own deduction for proper fit and order as frame-to-frame



2" Standard L-Frame\*



Narrow Colonial L-Frame\*\*



Traditional Deco Frame\*

### Traditional Deco Frame

- Outside mount and frame-to-frame measure only
- Panel and frame are prehinged
- Frame is not predrilled
- No factory deduction made
  - If using in a tight spot, installer must make own deduction for proper fit and order as frame-to-frame

\*Frames for specialties differ slightly. See "Sunburst Arch with Frame" section for dimensional drawings.

\*\*Not available for Composite specialties

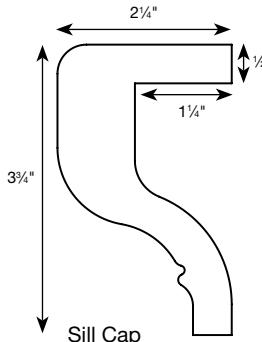
# Options

## Frame Product Detail

**NOTE:** Frames larger than 115" ordered size require splicing.

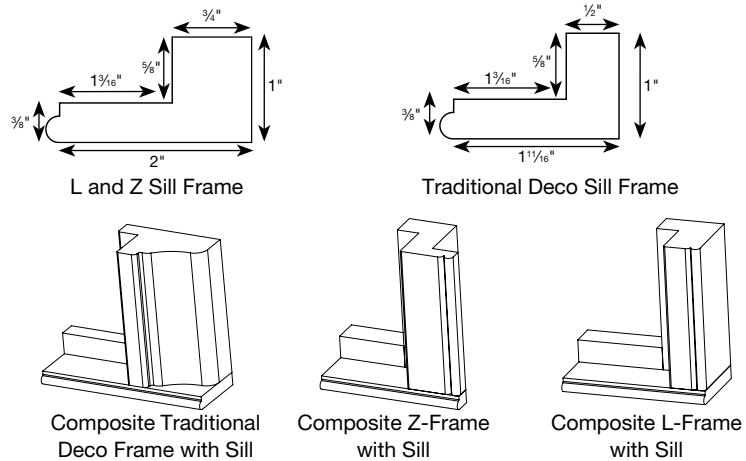
### Sill Cap

- Available with all frames
- Available with following frame configurations: 3-sided inverted with sill cap bottom, 4-sided with sill cap bottom, 4-sided with sill frame top and sill cap bottom
- Buildout included ( $1\frac{1}{8}$ " x  $\frac{1}{2}$ ") for inside mount frames
- Will be made in wood and painted to match shutter color ordered
- Not available on specialty shapes



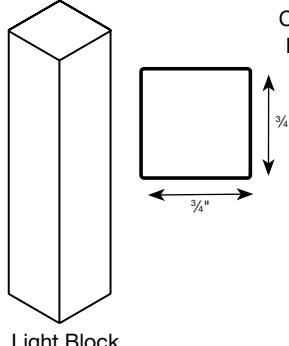
### Sill Frame

- Offered with L-, Z-, and traditional deco frame
- Not available with buildouts
- Sill frames are notched to accommodate side frames and joined with screws



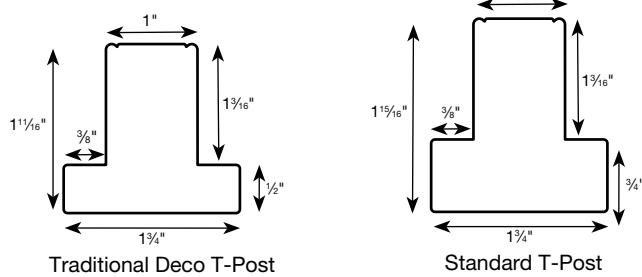
### Light Block

- Included with hang strip, direct mount, 2-sided, and 3-sided frame configurations



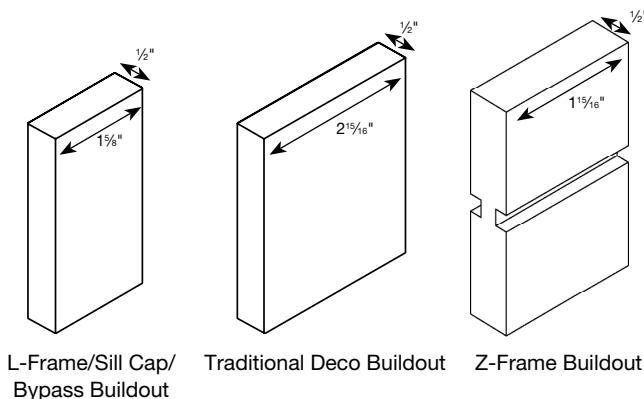
### T-Post

- Post that divides the shutter into multiple sections
- Horizontal post is available on double hung shutters
- T-post predrilled by factory
- T-post L-bracket included on hang strip and direct mount



### Buildout

- Used with L-frames, deco frame, and Z-frames
- Available only in  $\frac{1}{2}$ " thickness
- Maximum  $\frac{1}{2}$ " (one piece) per shutter for bypass
- Maximum 1" (two pieces) per shutter for Z-frames
- Maximum 2" (four pieces) per shutter for L-frames and deco frame
- Z-frame build out will be wood



# Specifications

## Proper Application of the Tilt-Out Z-Frame

### Tilt-Out Z-Frame (inside mount)

Designed to be used with certain styles of window trim. Panel and frame are prehinged. Frame is not predrilled. Shipment includes self-tapping trim head screws.

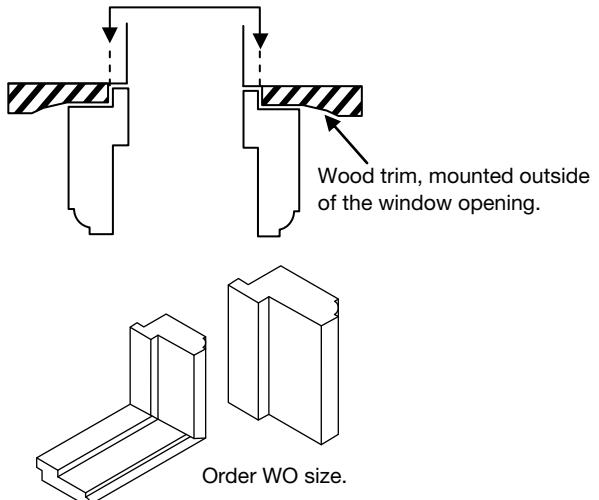
Tilt-out Z-frame must be ordered as "Window Opening" (WO) size. NO factory deduction is made with this frame.

Factory Deductions: Width: 0"  
Height: 0"

**NOTE:** Installer MUST make own deductions for proper fit. If diagonal measurements exceed  $\frac{1}{8}$ " out of square, use other outside mount frame style.



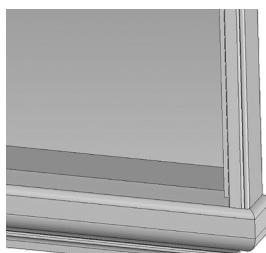
When using with wood trim, measure the order width from these points and make the appropriate deduction for fit.



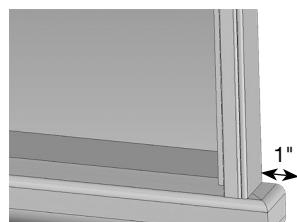
Tilt-Out Z-Frame with Sill Frame

## Sill Cap Application

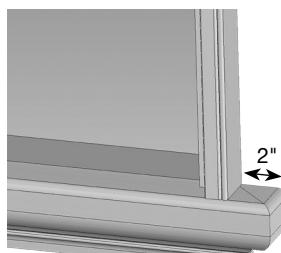
### Ordering Options



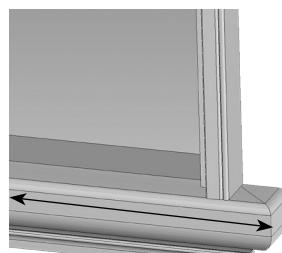
Flush with Frame



1" Overlap Per Side



2" Overlap Per Side



Specified Cap Length

### Three Available Frame Configuration Options

- 3-sided inverted with sill cap bottom
- 4-sided with sill cap bottom
- 4-sided with sill frame top and sill cap bottom

Existing sill length on window will be required when ordering. This is to assure that sill cap option ordered will fit over the top of your existing window sill. A  $1\frac{1}{8}$ " buildup will be provided to take up the gap between the existing sill and any inside mount frame. This buildup will be butted up to the back edge of the sill cap to extend the depth. Sill cap cannot be used if existing window sill has apron.

The sill cap will sit flush against the wall for window sills protruding up to  $1\frac{1}{4}$ " from the face of the wall. The sill cap can be used on deeper sills but there will be a gap between the wall and the sill cap.

No mounting hardware included. Adhesive should be used to attach sill cap to window sill.

**NOTE:** Not available on any composite specialties.

# Specifications

## Deductions for Frame Allowances

### Direct Mount

- Automatically taken at factory
- Width deduction— $\frac{1}{4}$ "
- Height deduction— $\frac{1}{4}$ "

### Hang Strip

- Automatically taken at factory
- Width deduction— $\frac{1}{4}$ "
- Height deduction— $\frac{1}{4}$ "

### Z-Frame (standard and signature only)

- Automatically taken at factory
- See chart below for width and height deductions

Z-Frame Configuration	Frame Width Deduction (inches)	Frame Height Deduction (inches)
2-Sided	— $\frac{5}{16}$	No deduction*
3-Sided or 3-Sided Inverted	— $\frac{5}{16}$	— $\frac{5}{32}$ *
3-Sided Sill Top or Bottom	— $\frac{5}{16}$	— $\frac{1}{16}$ *
3-Sided Inverted with Sill Cap Bottom	— $\frac{5}{16}$	— $\frac{1}{16}$ *
4-Sided	— $\frac{5}{16}$	— $\frac{5}{16}$
4-Sided Sill Top or Bottom	— $\frac{5}{16}$	— $\frac{5}{32}$
4-Sided Sill Top and Bottom	— $\frac{5}{16}$	— $\frac{1}{16}$
4-Sided Sill Top and Sill Cap Bottom	— $\frac{5}{16}$	— $\frac{1}{16}$
4-Sided Sill Cap Bottom	— $\frac{5}{16}$	— $\frac{5}{32}$

\*Using this deduction, panel clearance on open ends of frame will automatically be  $\frac{1}{8}$ ".

**NOTE:** Factory makes no deductions on tilt-out Z-frames; the measurement is the same as the window opening (see "Proper Application of the Tilt-Out Z-Frame" section). You must take your own deductions on tilt-out Z-frames.

### L-Frame

- No deductions taken at factory
- If using for inside mount or in a tight spot, installer must make own deduction for proper fit and order as frame-to-frame

### Traditional Deco Frame

- No deductions taken at factory
- If using in a tight spot, installer must make own deduction for proper fit and order as frame-to-frame

## Size Considerations

### All Louver Sizes: Minimum and Maximum (order width by panel configuration)

Number of Panels	Panel Configurations	Direct Mount, Hang Strip, and Tilt-Out Z-Frame		All Other Z-Frames (except Tilt-Out Z)		Standard L-Frames		Narrow Colonial L-Frame		Traditional Deco Frame	
		WO Size		WO Size		F-F Size		F-F Size		F-F Size	
		Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)
1 Panel	L, R	9 $\frac{3}{16}$	36 $\frac{3}{16}$	11	37 $\frac{7}{8}$	11 $\frac{1}{16}$	38 $\frac{1}{4}$	10 $\frac{1}{16}$	37 $\frac{11}{16}$	14 $\frac{7}{8}$	40 $\frac{7}{8}$
2 Panels	LR	18 $\frac{1}{16}$	72	19 $\frac{7}{8}$	73 $\frac{1}{16}$	20 $\frac{1}{16}$	74 $\frac{1}{16}$	19 $\frac{1}{16}$	73 $\frac{3}{16}$	24 $\frac{11}{16}$	76 $\frac{11}{16}$
	LTR, LTL, RTR, RTL	19 $\frac{3}{8}$	73 $\frac{3}{8}$	21 $\frac{3}{16}$	75 $\frac{1}{16}$	21 $\frac{3}{8}$	75 $\frac{7}{16}$	20 $\frac{7}{8}$	74 $\frac{7}{8}$	26 $\frac{1}{16}$	78 $\frac{1}{16}$
3 Panels	LL, RR	18 $\frac{1}{16}$	48 $\frac{1}{2}$	19 $\frac{7}{8}$	49 $\frac{1}{16}$	20 $\frac{1}{16}$	50 $\frac{1}{16}$	19 $\frac{1}{16}$	53 $\frac{3}{16}$	24 $\frac{11}{16}$	52 $\frac{11}{16}$
	LLR, LRR	27 $\frac{9}{16}$	72 $\frac{3}{16}$	29 $\frac{1}{16}$	74	29 $\frac{1}{4}$	74 $\frac{1}{4}$	28 $\frac{3}{4}$	73 $\frac{3}{4}$	24 $\frac{11}{16}$	76 $\frac{11}{16}$
	LLTR, LTRR	28 $\frac{1}{4}$	85 $\frac{3}{16}$	30 $\frac{1}{16}$	86 $\frac{7}{8}$	30 $\frac{1}{4}$	87 $\frac{1}{4}$	29 $\frac{3}{4}$	90 $\frac{3}{4}$	35 $\frac{7}{8}$	89 $\frac{3}{8}$
	LTTLR, LRTR	28 $\frac{1}{4}$	109 $\frac{3}{16}$	30 $\frac{1}{16}$	110 $\frac{7}{8}$	30 $\frac{1}{4}$	111 $\frac{1}{4}$	29 $\frac{3}{4}$	110 $\frac{3}{4}$	35 $\frac{7}{8}$	113 $\frac{3}{8}$
4 Panels	LTLTR, LTRTR, LTLLT, RTRTR	29 $\frac{9}{16}$	110 $\frac{1}{16}$	31 $\frac{3}{8}$	112	31 $\frac{1}{16}$	112 $\frac{3}{8}$	31 $\frac{1}{16}$	112 $\frac{1}{16}$	37 $\frac{1}{4}$	115 $\frac{1}{4}$
	LLRR	36 $\frac{1}{16}$	95 $\frac{5}{8}$	38 $\frac{1}{8}$	97 $\frac{9}{16}$	38 $\frac{1}{16}$	97 $\frac{11}{16}$	37 $\frac{1}{16}$	105 $\frac{1}{16}$	44 $\frac{5}{16}$	100 $\frac{5}{16}$
	LLTRR	37 $\frac{1}{8}$	97	38 $\frac{15}{16}$	98 $\frac{1}{16}$	39 $\frac{1}{8}$	99 $\frac{1}{16}$	38 $\frac{5}{8}$	106 $\frac{5}{8}$	45 $\frac{11}{16}$	101 $\frac{11}{16}$
	LRTLRL	37 $\frac{1}{8}$	145	38 $\frac{15}{16}$	146 $\frac{11}{16}$	39 $\frac{1}{8}$	147 $\frac{1}{16}$	38 $\frac{5}{8}$	146 $\frac{5}{8}$	46 $\frac{1}{16}$	150 $\frac{1}{16}$
	LTLRTR	38 $\frac{7}{16}$	146 $\frac{3}{8}$	40 $\frac{1}{4}$	148 $\frac{1}{16}$	40 $\frac{1}{16}$	148 $\frac{1}{16}$	39 $\frac{15}{16}$	147 $\frac{15}{16}$	47 $\frac{1}{16}$	151 $\frac{1}{16}$
5 Panels	LTRTLTR, LTLLTRTR	39 $\frac{3}{4}$	147 $\frac{3}{4}$	41 $\frac{1}{16}$	149 $\frac{7}{16}$	41 $\frac{3}{4}$	149 $\frac{13}{16}$	41 $\frac{1}{4}$	149 $\frac{1}{4}$	48 $\frac{7}{16}$	152 $\frac{7}{16}$
	LTLLRTR, LTLLRTR	47 $\frac{3}{8}$	146 $\frac{3}{8}$	51 $\frac{1}{4}$	148 $\frac{3}{16}$	51 $\frac{1}{8}$	148 $\frac{3}{8}$	51 $\frac{1}{8}$	147 $\frac{7}{8}$	61 $\frac{5}{16}$	151
	LTLLTRTR, LTLLTRTR	50 $\frac{1}{16}$	184 $\frac{1}{16}$	51 $\frac{7}{8}$	186 $\frac{7}{8}$	52 $\frac{1}{16}$	187	50 $\frac{1}{16}$	188 $\frac{1}{16}$	60 $\frac{3}{8}$	189 $\frac{3}{8}$
6 Panels	LRTLTLRL, LRTRTRLR	47 $\frac{1}{16}$	182 $\frac{1}{16}$	50 $\frac{15}{16}$	185 $\frac{15}{16}$	51 $\frac{1}{16}$	184 $\frac{3}{16}$	53 $\frac{1}{16}$	188 $\frac{7}{16}$	55 $\frac{7}{16}$	187 $\frac{7}{16}$
	LLTLRTRR	56 $\frac{1}{16}$	170 $\frac{3}{8}$	58	172 $\frac{1}{16}$	58 $\frac{1}{16}$	172 $\frac{1}{16}$	57 $\frac{11}{16}$	219 $\frac{1}{16}$	67 $\frac{1}{16}$	175 $\frac{1}{16}$
	LRTLRLTR	56 $\frac{1}{16}$	216	58	219 $\frac{11}{16}$	58 $\frac{1}{16}$	220 $\frac{1}{16}$	57 $\frac{11}{16}$	219 $\frac{11}{16}$	67 $\frac{1}{16}$	223 $\frac{1}{16}$
	LTLLRRTR	56 $\frac{1}{16}$	172 $\frac{3}{16}$	58 $\frac{1}{2}$	172 $\frac{3}{8}$	58 $\frac{1}{16}$	174 $\frac{1}{16}$	58 $\frac{3}{16}$	180 $\frac{3}{16}$	67 $\frac{3}{16}$	175 $\frac{3}{16}$
	LTRTLRTR	57 $\frac{1}{2}$	171 $\frac{3}{8}$	59 $\frac{1}{16}$	173 $\frac{1}{16}$	59 $\frac{1}{2}$	173 $\frac{1}{16}$	59	181	68 $\frac{1}{16}$	176 $\frac{1}{16}$
8 Panels	LRTLRLRL	75 $\frac{3}{4}$	291 $\frac{3}{4}$	77 $\frac{7}{16}$	293 $\frac{9}{16}$	77 $\frac{3}{4}$	295	76 $\frac{3}{4}$	292 $\frac{3}{4}$	80 $\frac{3}{8}$	228 $\frac{3}{8}$
	LRTLLRRTL	73 $\frac{15}{16}$	241 $\frac{15}{16}$	75 $\frac{3}{4}$	243 $\frac{3}{4}$	75 $\frac{15}{16}$	243 $\frac{15}{16}$	75 $\frac{7}{16}$	251 $\frac{1}{16}$	79 $\frac{3}{16}$	247 $\frac{3}{16}$
	LLTLLRRTRR	73 $\frac{15}{16}$	193 $\frac{15}{16}$	75 $\frac{3}{4}$	195 $\frac{3}{4}$	75 $\frac{15}{16}$	195 $\frac{15}{16}$	75 $\frac{7}{16}$	211 $\frac{1}{16}$	79 $\frac{3}{16}$	198 $\frac{3}{16}$

**NOTE:** Panel widths larger than 30" for 2 $\frac{1}{2}$ " and 3 $\frac{1}{2}$ " louvers and larger than 26" for 4 $\frac{1}{2}$ " louvers will be made with reinforced louvers.

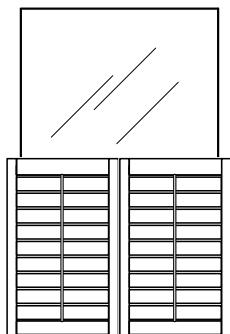
## Size Considerations

### Standard Shutters: Minimum and Maximum (order height by frame type and louver size)

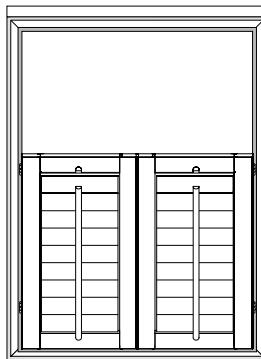
Measure Type	Frame Configurations	Frame Type	Minimum (inches)		Maximum (inches)
			Louver Size		Louver Size
			2½	3½	4½
Window Opening	2-sided	Direct mount/hang strip	10½	12¼	14¼
	3-sided inverted with sill cap bottom		10½	12¾	14¾
	2-sided		10½	12¼	14¼
	3-sided and 3-sided inverted		11½	13½	15½
	3-sided sill top or bottom		11½	13½	15½
	3-sided inverted with sill cap bottom		11½	13½	15½
	4-sided		12½	14½	16½
	4-sided with sill top or bottom		11½	13½	15½
	4-sided with sill top and bottom		11	13	15
	4-sided with sill cap bottom		10½	12¾	14¾
	4-sided with sill frame top and sill cap bottom	Z-frames (except Tilt-Out Z)	11½	13½	15½
	2-sided		10½	12¼	14¼
	3-sided and 3-sided inverted		10½	12½	14½
	3-sided sill top or bottom		11½	13½	15½
	3-sided inverted with sill cap bottom		10½	12¾	14¾
	4-sided		11½	13½	15½
	4-sided with sill top or bottom		10½	12½	14½
	4-sided with sill top and bottom		11	13	15
	4-sided with sill cap bottom	Tilt-out Z-frame	10½	12¾	14¾
	4-sided with sill frame top and sill cap bottom		11½	13½	15½
	2-sided		10½	12¼	14¼
	3-sided and 3-sided inverted		11	13	15
	3-sided sill top or bottom		11½	13½	15½
	3-sided inverted with sill cap bottom		10½	12¾	14¾
	4-sided		11½	13½	15½
	4-sided with sill top or bottom		10½	12½	14½
Frame-to-Frame	4-sided with sill top and bottom	Narrow colonial L-frame	11	13	15
	4-sided with sill cap bottom		11½	13½	15½
	4-sided with sill frame top and sill cap bottom		11½	13½	15½
	2-sided	Standard L-frames	10½	12¼	14¼
	3-sided and 3-sided inverted		11½	13¼	15¼
	3-sided sill top or bottom		11½	13½	15½
	3-sided inverted with sill cap bottom		11½	13¾	15¾
	4-sided	Traditional deco frame	12½	14¼	16¼
	4-sided with sill top or bottom		11½	13¾	15¾
	4-sided with sill top and bottom		11	13	15
	4-sided with sill cap bottom		10½	12¾	14¾
	4-sided with sill frame top and sill cap bottom		11½	13½	15½
	2-sided	Traditional deco frame	10½	12¼	14¼
	3-sided and 3-sided inverted		12½	14½	16½
	3-sided sill top or bottom		10½	12½	14½
	3-sided inverted with sill cap bottom		13½	15½	17½
	4-sided		14½	16½	18½
	4-sided with sill top or bottom		12½	14½	16½
	4-sided with sill top and bottom		11	13	15
	4-sided with sill cap bottom		10½	12¾	14¾
	4-sided with sill frame top and sill cap bottom		11½	13½	15½

## Specialty Styles

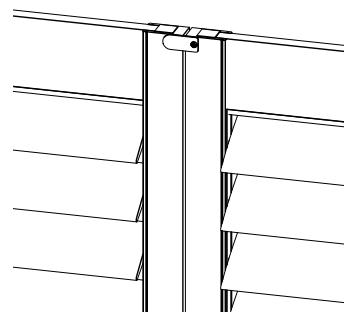
### Café Shutters



Shown as 2-Sided



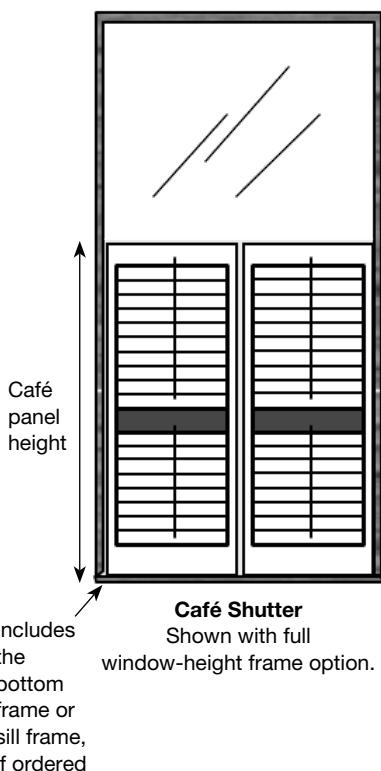
Shown as 4-Sided



Rear View of Café Panel  
Optional: Café Aligning Catch

- Tops of composite panels are NOT finished and are not recommended for café shutters
- Café shutter panels cover the lower portion of the window
- Frame can be ordered to stop at panel height or can be ordered to fully frame the window
- Pricing is based on width x café panel height
- Panels come standard with magnet on the base of each panel; aligning catch at the top panels is optional and must be requested at the time of order
- Panel configurations ordered with a T-post will come with T-post cut to frame height, not café panel height

**ORDER ENTRY TIP:** When ordering frames to stop at panel height: 3-sided, 3-sided sill top, or 4-sided with or without sill configurations must be entered as standard shutters. 2-sided, 3-sided inverted, and 3-sided inverted sill bottom can be entered as café with panel and frame height the same size.



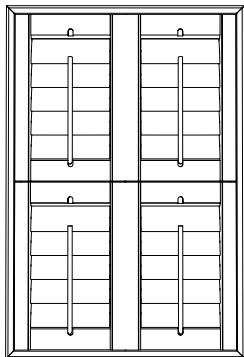
**Café is available in a variety of frames, both inside and outside mount.**

- Measure format depends on frame type selected
- For direct mount, use "window opening" size (WO) and no frame is furnished  
**NOTE:** Panel will be  $\frac{1}{8}$ " smaller than café panel height ordered for bottom swing clearance.
- For hang strip, use "window opening" size (WO) and hang strip will be the same height as café panel  
**NOTE:** Panel will be  $\frac{1}{8}$ " smaller than café panel height ordered for bottom swing clearance.
- For Z-frame, use "window opening" size (WO) and frame can be made at same height as café panel or be made at window height for "full-height frame"  
**NOTE:** The café panel height ordered will include whatever frame configuration is ordered for the bottom. The café panel height is the height at which the panels will stop.
- For L-frame and traditional deco frame, use "frame-to-frame" size (F-F) and frame can be made the same height as café panel or be made at window height for "full-height frame"  
**NOTE:** The café panel height ordered will include whatever frame configuration is ordered for the bottom. The café panel height is the height at which the panels will stop.

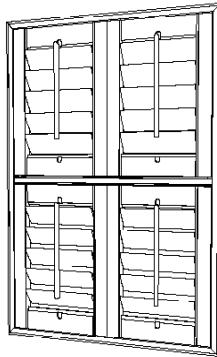
## Specialty Styles

### Double Hung Shutters

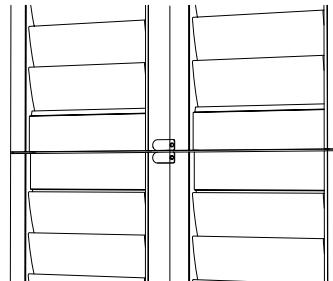
A specialty shutter style with one set of shutter panels over the top of another set of shutter panels in a continuous frame within a window. The panels are independent of each other, allowing each panel to operate separately.



Double Hung

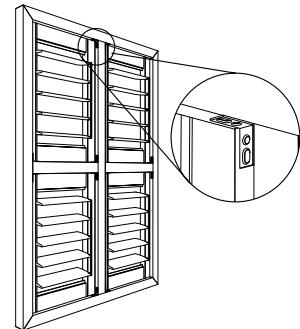


Double Hung with  
Horizontal T-Post



Rear View of Double Hung Panel  
with Aligning Catch

- Tops of composite panels are NOT finished and are not recommended for double hung shutters
- Maximum of up to four panel shutter configurations per set only, not including any bifold configurations
- Top and bottom panel sections must have identical panel configurations
- All frame configurations available
- Maximum height of bottom panel 72"
- Maximum height of top panel 48"
- Top rails in bottom set and bottom rails in top set will not exceed 3½" on 2½" and 3½" louvers
  - 4½" louvers may have rails larger than 3½"
- Divider rail not available
- Split tilt available as center only; cannot be specified
  - Split tilt available as either top or bottom panel sets or both top and bottom
- Astragal, Hide-A-Tilt™ (1-way or 2-way closure), and Front Tilt (1-way or 2-way closure) are available
- Aligning catch automatically included in LR, LTLR, LRTR, LRTL, and LTLRTR configurations
- Horizontal T-post option available
  - L-bracket automatically included with all horizontal T-post orders (see image to right)
  - If horizontal T-post is ordered with panel configuration including a T-post, the horizontal T-post will be split and the vertical T-post will be one piece



## Specialty Styles

### Double Hung Shutters: Minimum and Maximum Order Width (by panel configuration)

Number of Panels	Panel Configurations	Direct Mount, Hang Strip, and Tilt-Out Z-Frame		All Other Z-Frames (except Tilt-Out Z)		Standard L-Frames		Narrow Colonial L-Frame		Traditional Deco Frame	
		WO Size		WO Size		F-F Size		F-F Size		F-F Size	
		Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)
1 Panel	L, R	9 $\frac{1}{4}$	36 $\frac{3}{16}$	11 $\frac{1}{16}$	37 $\frac{1}{8}$	11 $\frac{1}{4}$	38 $\frac{1}{4}$	10 $\frac{1}{4}$	37 $\frac{1}{4}$	14 $\frac{1}{8}$	40 $\frac{1}{8}$
2 Panels	LR	18 $\frac{1}{16}$	72	19 $\frac{1}{8}$	73 $\frac{1}{16}$	20 $\frac{1}{16}$	74 $\frac{1}{16}$	19 $\frac{9}{16}$	73 $\frac{9}{16}$	24 $\frac{11}{16}$	76 $\frac{1}{16}$
	LTR, LTL, RTR, RTL	19 $\frac{1}{8}$	73 $\frac{1}{8}$	21 $\frac{1}{16}$	75 $\frac{1}{16}$	21 $\frac{1}{8}$	75 $\frac{1}{16}$	20 $\frac{7}{8}$	74 $\frac{7}{8}$	26 $\frac{1}{16}$	78 $\frac{1}{16}$
3 Panels	LTLR, LRTR	28 $\frac{1}{4}$	109 $\frac{3}{16}$	30 $\frac{1}{16}$	110 $\frac{1}{8}$	30 $\frac{1}{4}$	111 $\frac{1}{4}$	29 $\frac{1}{4}$	110 $\frac{1}{4}$	35 $\frac{1}{8}$	113 $\frac{1}{8}$
	LTLTR, LTRTR, LTLTL, RTTR	29 $\frac{9}{16}$	110 $\frac{9}{16}$	31 $\frac{1}{8}$	112	31 $\frac{1}{16}$	112 $\frac{5}{8}$	31 $\frac{1}{16}$	112 $\frac{1}{16}$	37 $\frac{1}{4}$	115 $\frac{1}{4}$
4 Panels	LRTLRL	37 $\frac{1}{8}$	145	38 $\frac{15}{16}$	146 $\frac{11}{16}$	39 $\frac{1}{8}$	147 $\frac{1}{16}$	38 $\frac{1}{8}$	146 $\frac{1}{8}$	46 $\frac{1}{16}$	150 $\frac{1}{16}$
	LTLRTR	38 $\frac{7}{16}$	146 $\frac{1}{8}$	40 $\frac{1}{4}$	148 $\frac{1}{16}$	40 $\frac{1}{16}$	148 $\frac{1}{16}$	39 $\frac{15}{16}$	147 $\frac{15}{16}$	47 $\frac{1}{16}$	151 $\frac{1}{16}$
	LTRTLTR, LTLTRTR	39 $\frac{3}{4}$	147 $\frac{3}{4}$	41 $\frac{1}{16}$	149 $\frac{7}{16}$	41 $\frac{1}{4}$	149 $\frac{13}{16}$	41 $\frac{1}{4}$	149 $\frac{1}{4}$	48 $\frac{7}{16}$	152 $\frac{7}{16}$

### Measuring Double Hung Split Location

Measure double hung split location exactly how you measure for divider rail and split tilt (see “Measuring Divider Rail or Split Tilt Location” section). Always start from the bottom point of measurement to center of the desired double hung split.

- Double hung split location will always be exact
- If ordering a horizontal T-post, ordered split location will be located at the center of the T-post

To measure frame-to-frame, measure from the bottom of the shutter frame up to the center of the desired double hung split location.

To measure window opening, measure from the sill or bottom of the window opening to the center of the desired double hung split location.

## Specialty Styles

### Double Hung Shutters: Minimum and Maximum Order Height (by frame type and louver size)

Measure Type	Frame Configuration	Frame Type	Minimum (inches)		Maximum (inches)
			Louver Size		
			2½	3½	4½
Window Opening	2 side Sill cap bottom	Direct mount/hang strip	20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	2 side		20 <sup>15</sup> / <sub>16</sub>	24 <sup>15</sup> / <sub>16</sub>	28 <sup>15</sup> / <sub>16</sub>
	3 side and 3 side invert		20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	3 side sill top or bottom		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
	4 sided sill top or bottom		21 <sup>11</sup> / <sub>16</sub>	25 <sup>11</sup> / <sub>16</sub>	29 <sup>11</sup> / <sub>16</sub>
	4 sided sill top and bottom		21 <sup>3</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>16</sub>	29 <sup>3</sup> / <sub>16</sub>
	4 side		22 <sup>1</sup> / <sub>4</sub>	26 <sup>1</sup> / <sub>4</sub>	30 <sup>1</sup> / <sub>4</sub>
	3 sided invert sill cap bottom		20 <sup>15</sup> / <sub>16</sub>	24 <sup>15</sup> / <sub>16</sub>	28 <sup>15</sup> / <sub>16</sub>
	4 sided sill cap bottom		21 <sup>13</sup> / <sub>16</sub>	25 <sup>13</sup> / <sub>16</sub>	29 <sup>13</sup> / <sub>16</sub>
	4 sided sill cap bottom sill top		21 <sup>5</sup> / <sub>16</sub>	25 <sup>5</sup> / <sub>16</sub>	29 <sup>5</sup> / <sub>16</sub>
	2 side		20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	3 side and 3 side invert		20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	3 side sill top or bottom		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
	4 sided sill top or bottom		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
Frame-to-Frame	4 sided sill top and bottom		21 <sup>3</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>16</sub>	29 <sup>3</sup> / <sub>16</sub>
	4 side		20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	3 sided invert sill cap bottom		20 <sup>15</sup> / <sub>16</sub>	24 <sup>15</sup> / <sub>16</sub>	28 <sup>15</sup> / <sub>16</sub>
	4 sided sill cap bottom		20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	4 sided sill cap bottom sill top		20 <sup>15</sup> / <sub>16</sub>	24 <sup>15</sup> / <sub>16</sub>	28 <sup>15</sup> / <sub>16</sub>
	2 side	L-frames/extended L	20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	3 side and 3 side invert		21 <sup>7</sup> / <sub>16</sub>	25 <sup>7</sup> / <sub>16</sub>	29 <sup>7</sup> / <sub>16</sub>
	3 side sill top or bottom		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
	4 sided sill top or bottom		21 <sup>13</sup> / <sub>16</sub>	25 <sup>13</sup> / <sub>16</sub>	29 <sup>13</sup> / <sub>16</sub>
	4 sided sill top and bottom		21 <sup>3</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>16</sub>	29 <sup>3</sup> / <sub>16</sub>
	4 side		22 <sup>7</sup> / <sub>16</sub>	26 <sup>7</sup> / <sub>16</sub>	30 <sup>7</sup> / <sub>16</sub>
	3 sided invert sill cap bottom		20 <sup>15</sup> / <sub>16</sub>	24 <sup>15</sup> / <sub>16</sub>	28 <sup>15</sup> / <sub>16</sub>
	4 sided sill cap bottom		21 <sup>13</sup> / <sub>16</sub>	25 <sup>13</sup> / <sub>16</sub>	29 <sup>13</sup> / <sub>16</sub>
	4 sided sill cap bottom sill top		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
	2 side		20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	3 side and 3 side invert		21 <sup>7</sup> / <sub>16</sub>	25 <sup>7</sup> / <sub>16</sub>	29 <sup>7</sup> / <sub>16</sub>
	3 side sill top or bottom		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
	4 sided sill top or bottom		21 <sup>13</sup> / <sub>16</sub>	25 <sup>13</sup> / <sub>16</sub>	29 <sup>13</sup> / <sub>16</sub>
	4 sided sill top and bottom		21 <sup>3</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>16</sub>	29 <sup>3</sup> / <sub>16</sub>
	4 side		22 <sup>7</sup> / <sub>16</sub>	26 <sup>7</sup> / <sub>16</sub>	30 <sup>7</sup> / <sub>16</sub>
	3 sided invert sill cap bottom		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
	4 sided sill cap bottom		21 <sup>13</sup> / <sub>16</sub>	25 <sup>13</sup> / <sub>16</sub>	29 <sup>13</sup> / <sub>16</sub>
	4 sided sill cap bottom sill top		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
Traditional Deco	2 side	Traditional deco frame	20 <sup>7</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>
	3 side and 3 side invert		22 <sup>3</sup> / <sub>4</sub>	26 <sup>3</sup> / <sub>4</sub>	30 <sup>3</sup> / <sub>4</sub>
	3 side sill top or bottom		20 <sup>13</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	28 <sup>13</sup> / <sub>16</sub>
	4 sided sill top or bottom		23 <sup>13</sup> / <sub>16</sub>	27 <sup>13</sup> / <sub>16</sub>	29 <sup>13</sup> / <sub>16</sub>
	4 sided sill top and bottom		21 <sup>3</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>16</sub>	29 <sup>3</sup> / <sub>16</sub>
	4 side		25 <sup>7</sup> / <sub>16</sub>	29 <sup>7</sup> / <sub>16</sub>	33 <sup>7</sup> / <sub>16</sub>
	3 sided invert sill cap bottom		20 <sup>15</sup> / <sub>16</sub>	24 <sup>15</sup> / <sub>16</sub>	28 <sup>15</sup> / <sub>16</sub>
	4 sided sill cap bottom		23 <sup>1</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>4</sub>	31 <sup>1</sup> / <sub>4</sub>
	4 sided sill cap bottom sill top		21 <sup>5</sup> / <sub>16</sub>	25 <sup>5</sup> / <sub>16</sub>	29 <sup>5</sup> / <sub>16</sub>

**NOTE:** Maximum height of top panel is 48". Maximum height of bottom panel is 72".

## Specialty Styles

### Sunburst Arch without Frame

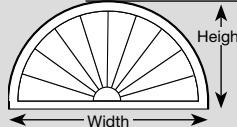
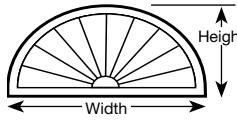
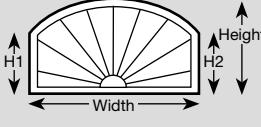
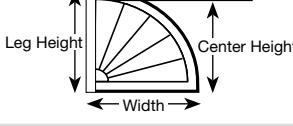
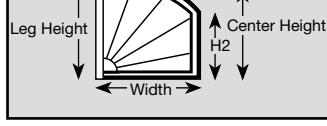
#### Specialty Shape without Frame: Panel Only

- Sunburst pattern—no horizontal louvers
- Rabbeted louvers for maximum light control
- Louver sizes will vary based on height and width of arch
- Louver rotation will vary based on louver size and louvers will not open to a full 90 degrees
- The arch has no tilt bar; the louvers open individually and are spring loaded at the bottom pin
- Buildouts not available
- Panel is  $1\frac{1}{16}$ " thick and may not match projection of other outside mount standard shutters
- Order arch as frame-to-frame finished size (factory takes no deductions)

**NOTE:** If mounting arch inside, take own deduction and order frame-to-frame. Template recommended.

Allow sufficient wall space to mount. Panel-only arches are:

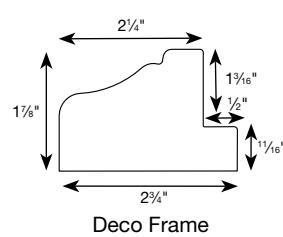
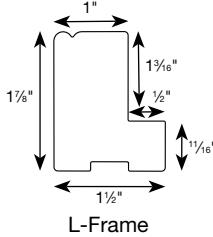
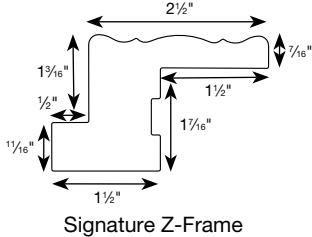
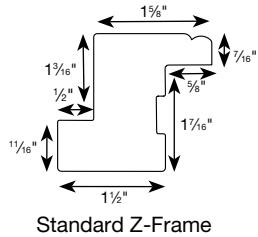
Frameless Arch Base Width (inches)	Top Rail Size (inches)	Bottom Rail Size (inches)
20 to less than 24	2	1
24 to less than 45	3	2
45 to less than 72	3	3

Frameless Full and $\frac{1}{4}$ Sunburst Arches—Panel Only	Specialty Shape without Frame: Minimum and Maximum Sizes			
	Width		Height	
	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)
 Perfect Sunburst Arch (order as eyebrow) Height = 50% of width No template required	20	72	7	36
 Eyebrow Sunburst Arch Height minimum = no less than 33% of width Height maximum = no greater than 66% of width Template required if height exceeds 54% of width	20	72	7	36
 Elongated Sunburst Arch Height minimum = no less than 33% of width Height maximum = no greater than 66% of width Template required if ordered height minus ordered leg height exceeds 54% of width	20	72	10	47½
 ¼ Eyebrow Sunburst Arch Leg height minimum = 33% of width Leg height maximum = 108% of width	15	36	7	36
 ¼ Elongated Sunburst Arch Leg height minimum = 33% of width Leg height maximum = 132% of width	15	36	10	47½

## Specialty Styles

### Sunburst Arch With Frame

Frame Options	Z-Frame*	L-Frame	Traditional Deco Frame
Mount	Inside mount only	Outside mount only	Outside mount only
Order Size	Window opening	Frame-to-frame	Frame-to-frame
Projection	3/8"	2"	1 1/16"



The above frame dimensions will be used for specialty shapes.

Specialty Shape with Frame: Minimum and Maximum Sizes					
	Width		Height		
	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)	
<b>Framed Full and 1/4 Sunburst Arches</b>	Z-frame	22 1/4	102 1/4	17 1/4	52 1/4
	Signature Z-frame	30	102 1/4	17 1/4	52 1/4
	L-frame	22 1/4	102 1/4	17 1/4	52 1/4
	Traditional deco frame	24 3/4	104 3/4	19 3/4	54 3/4
<b>Perfect Sunburst Arch</b> Height = 50% of width No template required	Z-frame	22 1/4	102 1/4	17 1/4	52 1/4
	Signature Z-frame	30	102 1/4	17 1/4	52 1/4
	L-frame	22 1/4	102 1/4	17 1/4	52 1/4
	Traditional deco frame	24 3/4	104 3/4	19 3/4	54 3/4
<b>Eyebrow Sunburst Arch</b> Height minimum = no less than 33% of width Height maximum = no greater than 66% of width Template required if height exceeds 54% of width	Z-frame	22 1/4	102 1/4	17 1/4	52 1/4
	Signature Z-frame	30	102 1/4	17 1/4	52 1/4
	L-frame	22 1/4	102 1/4	17 1/4	52 1/4
	Traditional deco frame	24 3/4	104 3/4	19 3/4	54 3/4
<b>Elongated Sunburst Arch</b> Height minimum = no less than 33% of width Height maximum = no greater than 66% of width Template required if ordered height minus ordered leg height exceeds 54% of width	Z-frame	22 1/4	102 1/4	17 1/4	52 1/4
	Signature Z-frame	30	102 1/4	17 1/4	52 1/4
	L-frame	22 1/4	102 1/4	17 1/4	52 1/4
	Traditional deco frame	24 3/4	104 3/4	19 3/4	54 3/4
<b>1/4 Eyebrow Sunburst Arch</b> Leg height minimum = 33% of width Leg height maximum = 108% of width	Z-frame	17 1/4	52 1/4	17 1/4	52 1/4
	Signature Z-frame	30	52 1/4	17 1/4	52 1/4
	L-frame	17 1/4	52 1/4	17 1/4	52 1/4
	Traditional deco frame	19 3/4	54 3/4	19 3/4	54 3/4
<b>1/4 Elongated Sunburst Arch</b> Leg height minimum = 33% of width Leg height maximum = 132% of width	Z-frame	17 1/4	52 1/4	17 1/4	52 1/4
	Signature Z-frame	30	52 1/4	17 1/4	52 1/4
	L-frame	17 1/4	52 1/4	17 1/4	52 1/4
	Traditional deco frame	19 3/4	54 3/4	19 3/4	54 3/4

**NOTE:** All frame types are available with sill bottom.

Framed arches not available with sill cap.

Buildouts are available on L-frame and traditional deco frame arches.

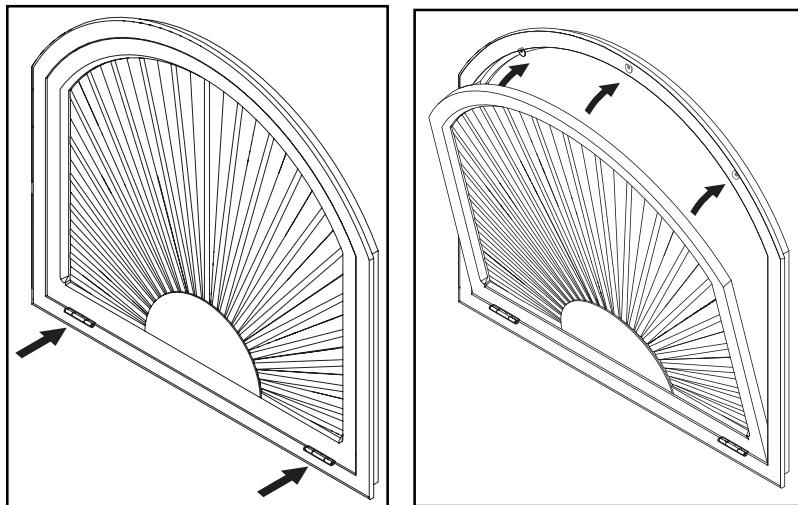
Buildouts are not available with sill bottom.

\*Framed arches not available with tilt-out Z-frame, narrow colonial L-frame, craftsman Z-frame, or 2.5" extended standard L-frame.

## Specialty Styles

### Framed Arch Installation Option

Arches arrive with the louvers installed.



#### Framed Arch—Installing Panel to Frame

Framed arches install similar to standard shutters with the exception that they are hinged on the bottom.

Framed Arch Panel Width (inches)	Number of Hinges
Less than 44	2
Greater than or equal to 44	3
Greater than or equal to 72	4
Greater than or equal to 96	5

### Frameless Arch Installation Option

Frameless arches to be installed using hinges and embedded magnets that will attach to a light block shaped to the panel profile. All necessary hardware and components will be included with shutter.

# Specialty Styles

## Arch and Angle Top Panel Shutters

### Available Arch Options:

- 2½", 3½", and 4½" louvers
- Astragal, Hide-A-Tilt™, split tilt, and 1 divider rail
  - Split tilt and divider rails will have +/- 2" tolerance
  - Divider rail required over 72" ordered height
  - Hidden tilt requires split tilt over 52" ordered height
- All panel configuration in standard shutters
- All frames, except tilt-out Z-frame, narrow colonial L-frame, craftsman Z-frame, and 2.5" extended standard L-frame
- Frame configurations: 3-sided, 4-sided, and 4-sided with sill bottom
- Buildouts available for L-frame and traditional deco frames without sill bottom

### Not Available Arch Options:

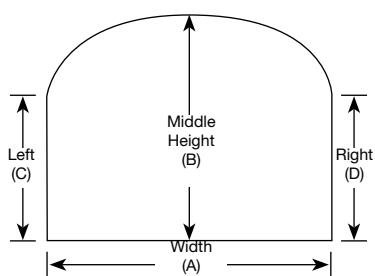
- Double hung
- Split tilt AND divider rail together
- Multiple divider rails
- Sill cap
- 2-way closure

### Arch Operation

- Arch louvers only tilt/close in the upwards position
- Louver tilt is restricted up to 90° (degrees) due to the curvature (or slope) at the top of the panel; a divider rail can be used to separate the upper arch portion from the lower rectangular portion; this will allow for full louver rotation of the louvers below the divider rail

**NOTE:** Arch/angle top shutters ordered with a signature Z-frame cannot be under 30" in width.

## Measuring Leg Height and Divider Rail Height for Window Opening



**Frames requiring WO measurement:**  
Z-frame, hang strip, and direct mount

### Measuring Leg Height:

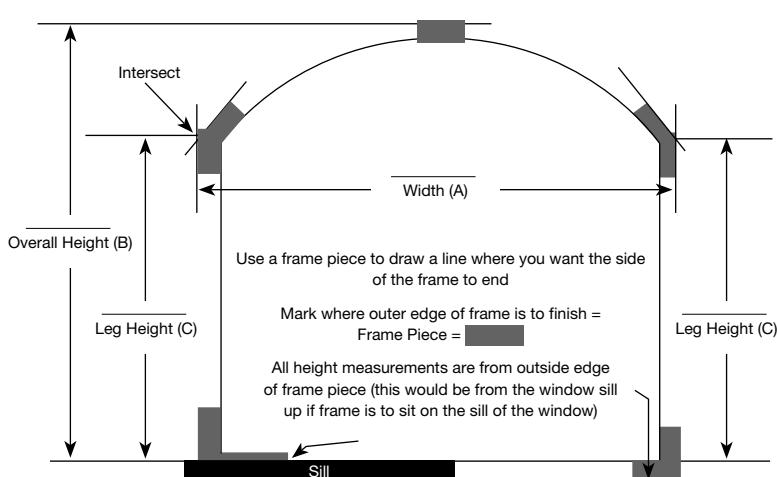
Measure from bottom of window up to arch "break point".

- Minimum leg height is 13"

### Measuring Divider and Split Tilt Rail Height:

Measure from bottom of window up to center of divider rail/split tilt.

## Measuring Leg Height and Divider Rail Height for Frame-to-Frame Measurement



**Frames Requiring F-F Measurement:**  
L-frames and traditional deco frames

### Measuring Leg Height:

Measure from bottom edge of frame up to arch "intersect" of the window (C).

- Minimum leg height is 13"

### Measuring Divider and Split Tilt Rail Height:

Measure from bottom of frame up to center of each divider rail/split tilt.

**NOTE:** Divider rail requirements are the same as standard shutters. One divider rail available on arches/angles.

Template required when the ordered height minus the leg height is over 54% of the width.

## Specialty Styles

### Arch and Angle Top Shutters: Minimum and Maximum (order width by panel configuration)

Number of Panels	Panel Configurations	Direct Mount, Hang Strip		Standard Z-Frame		Signature Z-Frame		2" Standard L-Frame		Traditional Deco Frame	
		WO Size		WO Size		WO Size		F-F Size		F-F Size	
		Minimum (inches)	Maximum (inches)								
1 Panel	L,R	9 <sup>1</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	38 <sup>8</sup> / <sub>16</sub>	30	38 <sup>8</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>4</sub>	38 <sup>1</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>4</sub>	40 <sup>4</sup> / <sub>16</sub>
2 Panels	LR	18 <sup>1</sup> / <sub>16</sub>	72	20 <sup>8</sup> / <sub>16</sub>	74 <sup>3</sup> / <sub>16</sub>	30	74 <sup>3</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>16</sub>	74 <sup>1</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	76 <sup>9</sup> / <sub>16</sub>
	LTR, LTL, RTR, RTL	19 <sup>8</sup> / <sub>16</sub>	73 <sup>8</sup> / <sub>16</sub>	21 <sup>11</sup> / <sub>16</sub>	75 <sup>8</sup> / <sub>16</sub>	30	75 <sup>8</sup> / <sub>16</sub>	21 <sup>8</sup> / <sub>16</sub>	75 <sup>8</sup> / <sub>16</sub>	25 <sup>15</sup> / <sub>16</sub>	77 <sup>15</sup> / <sub>16</sub>
3 Panels	LL, RR	18 <sup>1</sup> / <sub>16</sub>	40 <sup>1</sup> / <sub>2</sub>	20 <sup>8</sup> / <sub>16</sub>	42 <sup>3</sup> / <sub>16</sub>	30	42 <sup>3</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>16</sub>	42 <sup>1</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	44 <sup>9</sup> / <sub>16</sub>
	LLR, LRR	27 <sup>7</sup> / <sub>16</sub>	76 <sup>1</sup> / <sub>4</sub>	29 <sup>9</sup> / <sub>16</sub>	78 <sup>8</sup> / <sub>16</sub>	30	78 <sup>8</sup> / <sub>16</sub>	29 <sup>1</sup> / <sub>4</sub>	78 <sup>1</sup> / <sub>4</sub>	24 <sup>7</sup> / <sub>16</sub>	80 <sup>4</sup> / <sub>16</sub>
	LLTR, LTRR	28 <sup>4</sup> / <sub>16</sub>	77 <sup>3</sup> / <sub>16</sub>	30 <sup>8</sup> / <sub>16</sub>	79 <sup>8</sup> / <sub>16</sub>	30 <sup>9</sup> / <sub>16</sub>	79 <sup>8</sup> / <sub>16</sub>	30 <sup>1</sup> / <sub>4</sub>	79 <sup>1</sup> / <sub>4</sub>	35 <sup>5</sup> / <sub>8</sub>	81 <sup>3</sup> / <sub>16</sub>
	LTTR, LRTR	28 <sup>4</sup> / <sub>16</sub>	109 <sup>9</sup> / <sub>16</sub>	30 <sup>8</sup> / <sub>16</sub>	111 <sup>8</sup> / <sub>16</sub>	30 <sup>9</sup> / <sub>16</sub>	111 <sup>8</sup> / <sub>16</sub>	30 <sup>1</sup> / <sub>4</sub>	111 <sup>1</sup> / <sub>4</sub>	35 <sup>5</sup> / <sub>8</sub>	113 <sup>4</sup> / <sub>16</sub>
4 Panels	LTLTR, LTRTR, LTLL, RTRTR	29 <sup>9</sup> / <sub>16</sub>	110 <sup>9</sup> / <sub>16</sub>	31 <sup>7</sup> / <sub>8</sub>	112 <sup>1</sup> / <sub>2</sub>	31 <sup>7</sup> / <sub>8</sub>	112 <sup>1</sup> / <sub>2</sub>	31 <sup>1</sup> / <sub>16</sub>	112 <sup>5</sup> / <sub>16</sub>	37 <sup>1</sup> / <sub>8</sub>	115 <sup>1</sup> / <sub>16</sub>
	LLRR	36 <sup>6</sup> / <sub>16</sub>	79 <sup>8</sup> / <sub>16</sub>	38 <sup>8</sup> / <sub>16</sub>	81 <sup>13</sup> / <sub>16</sub>	38 <sup>8</sup> / <sub>16</sub>	81 <sup>13</sup> / <sub>16</sub>	38 <sup>5</sup> / <sub>16</sub>	81 <sup>11</sup> / <sub>16</sub>	44 <sup>1</sup> / <sub>16</sub>	84 <sup>1</sup> / <sub>16</sub>
	LLTRR	37 <sup>8</sup> / <sub>16</sub>	81	39 <sup>7</sup> / <sub>16</sub>	82 <sup>13</sup> / <sub>16</sub>	39 <sup>7</sup> / <sub>16</sub>	82 <sup>13</sup> / <sub>16</sub>	39 <sup>1</sup> / <sub>8</sub>	83 <sup>1</sup> / <sub>16</sub>	45 <sup>9</sup> / <sub>16</sub>	85 <sup>3</sup> / <sub>16</sub>
	LRTLRL	37 <sup>8</sup> / <sub>16</sub>	145	39 <sup>9</sup> / <sub>16</sub>	147 <sup>8</sup> / <sub>16</sub>	39 <sup>9</sup> / <sub>16</sub>	147 <sup>8</sup> / <sub>16</sub>	39 <sup>1</sup> / <sub>8</sub>	147 <sup>1</sup> / <sub>16</sub>	45 <sup>15</sup> / <sub>16</sub>	149 <sup>15</sup> / <sub>16</sub>
	LTLRTR	37 <sup>11</sup> / <sub>16</sub>	146 <sup>8</sup> / <sub>16</sub>	40 <sup>8</sup> / <sub>16</sub>	148 <sup>9</sup> / <sub>16</sub>	40 <sup>8</sup> / <sub>16</sub>	148 <sup>9</sup> / <sub>16</sub>	40 <sup>7</sup> / <sub>16</sub>	148 <sup>7</sup> / <sub>16</sub>	46 <sup>15</sup> / <sub>16</sub>	149 <sup>15</sup> / <sub>16</sub>
5 Panels	LTRTLTR, LTLLTRTR	39 <sup>4</sup> / <sub>16</sub>	147 <sup>4</sup> / <sub>16</sub>	42 <sup>1</sup> / <sub>16</sub>	149 <sup>15</sup> / <sub>16</sub>	42 <sup>1</sup> / <sub>16</sub>	149 <sup>15</sup> / <sub>16</sub>	41 <sup>4</sup> / <sub>16</sub>	149 <sup>13</sup> / <sub>16</sub>	48 <sup>5</sup> / <sub>16</sub>	152 <sup>15</sup> / <sub>16</sub>
	LTLRRTR, LTLLRTR	47 <sup>8</sup> / <sub>16</sub>	134 <sup>11</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>4</sub>	138 <sup>11</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>4</sub>	138 <sup>11</sup> / <sub>16</sub>	51 <sup>5</sup> / <sub>8</sub>	138 <sup>7</sup> / <sub>16</sub>	61 <sup>3</sup> / <sub>16</sub>	140 <sup>7</sup> / <sub>16</sub>
	LRTLTLR, LRTRTLR	47 <sup>11</sup> / <sub>16</sub>	182 <sup>5</sup> / <sub>16</sub>	51 <sup>7</sup> / <sub>16</sub>	185 <sup>7</sup> / <sub>16</sub>	51 <sup>7</sup> / <sub>16</sub>	185 <sup>7</sup> / <sub>16</sub>	51 <sup>3</sup> / <sub>16</sub>	184 <sup>3</sup> / <sub>16</sub>	55 <sup>5</sup> / <sub>16</sub>	187 <sup>15</sup> / <sub>16</sub>
6 Panels	LLTLRTRR	56 <sup>6</sup> / <sub>16</sub>	154 <sup>8</sup> / <sub>16</sub>	58 <sup>1</sup> / <sub>2</sub>	156 <sup>6</sup> / <sub>16</sub>	58 <sup>1</sup> / <sub>2</sub>	156 <sup>6</sup> / <sub>16</sub>	58 <sup>3</sup> / <sub>16</sub>	156 <sup>1</sup> / <sub>16</sub>	66 <sup>15</sup> / <sub>16</sub>	158 <sup>15</sup> / <sub>16</sub>
	LRTLRTLRL	56 <sup>9</sup> / <sub>16</sub>	216	58 <sup>1</sup> / <sub>2</sub>	219 <sup>11</sup> / <sub>16</sub>	58 <sup>1</sup> / <sub>2</sub>	219 <sup>11</sup> / <sub>16</sub>	58 <sup>3</sup> / <sub>16</sub>	220 <sup>1</sup> / <sub>16</sub>	66 <sup>15</sup> / <sub>16</sub>	222 <sup>15</sup> / <sub>16</sub>
	LTLLRRTR, LLTLTRTR	56 <sup>11</sup> / <sub>16</sub>	156 <sup>8</sup> / <sub>16</sub>	59	156 <sup>7</sup> / <sub>8</sub>	59	156 <sup>7</sup> / <sub>8</sub>	58 <sup>11</sup> / <sub>16</sub>	158 <sup>1</sup> / <sub>16</sub>	67 <sup>1</sup> / <sub>16</sub>	159 <sup>1</sup> / <sub>16</sub>
	LTLLTRRTR, LLTLTRTR	57 <sup>2</sup> / <sub>16</sub>	155 <sup>8</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>16</sub>	157 <sup>8</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>16</sub>	157 <sup>8</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>2</sub>	157 <sup>9</sup> / <sub>16</sub>	67 <sup>15</sup> / <sub>16</sub>	159 <sup>15</sup> / <sub>16</sub>
	LTRTLTLTR	60 <sup>4</sup> / <sub>16</sub>	222 <sup>1</sup> / <sub>8</sub>	62 <sup>9</sup> / <sub>16</sub>	224 <sup>5</sup> / <sub>16</sub>	62 <sup>9</sup> / <sub>16</sub>	224 <sup>5</sup> / <sub>16</sub>	62 <sup>1</sup> / <sub>4</sub>	224 <sup>3</sup> / <sub>16</sub>	70 <sup>1</sup> / <sub>16</sub>	226 <sup>1</sup> / <sub>16</sub>
8 Panels	LRTLRTLRTLRL	75 <sup>4</sup> / <sub>16</sub>	291 <sup>4</sup> / <sub>16</sub>	77 <sup>15</sup> / <sub>16</sub>	294 <sup>1</sup> / <sub>16</sub>	77 <sup>15</sup> / <sub>16</sub>	294 <sup>1</sup> / <sub>16</sub>	78 <sup>5</sup> / <sub>8</sub>	295	80 <sup>1</sup> / <sub>4</sub>	297 <sup>1</sup> / <sub>4</sub>
	LRTLLRRRTLRL	73 <sup>15</sup> / <sub>16</sub>	225 <sup>15</sup> / <sub>16</sub>	76 <sup>1</sup> / <sub>4</sub>	228 <sup>4</sup> / <sub>16</sub>	76 <sup>1</sup> / <sub>4</sub>	228 <sup>4</sup> / <sub>16</sub>	77 <sup>3</sup> / <sub>8</sub>	227 <sup>15</sup> / <sub>16</sub>	79 <sup>1</sup> / <sub>16</sub>	231 <sup>1</sup> / <sub>16</sub>
	LLTLLRRTRR	73 <sup>15</sup> / <sub>16</sub>	161 <sup>15</sup> / <sub>16</sub>	76 <sup>1</sup> / <sub>4</sub>	163 <sup>1</sup> / <sub>4</sub>	76 <sup>1</sup> / <sub>4</sub>	163 <sup>1</sup> / <sub>4</sub>	75 <sup>15</sup> / <sub>16</sub>	163 <sup>15</sup> / <sub>16</sub>	79 <sup>1</sup> / <sub>16</sub>	166 <sup>1</sup> / <sub>16</sub>

**NOTE:** Panel widths larger than 22" will have reinforced louvers for all louver sizes.

## Specialty Styles

### Arch and Angle Top Panel Shutters Height Limitations

See size considerations for width minimums and maximums.

Ordered Height Limitations for Arch and Angle Top Shutters				
	Frame Configuration	Frame Type	Minimum Louver Size (inches)	Maximum Louver Size (inches)
			2½, 3½, 4½	2½, 3½, 4½
Window Opening	2-sided	Hang strip/direct mount	16¼	96¼
	3-sided	Z-frames (Standard & Signature)	16⁹/₁₆	97⁵/₁₆
	4-sided	Z-frames (Standard & Signature)	17⁹/₁₆	98⁷/₁₆
	4-sided with sill bottom	Z-frames (Standard & Signature)	16⁹/₁₆	97¾
Frame-to-Frame	3-sided	2" Standard L-frame	17¼	97¼
	4-sided	2" Standard L-frame	18¼	97¼
	4-sided with sill bottom	2" Standard L-frame	17¾	96¼
	3-sided	Traditional deco frame	18⁹/₁₆	98½
	4-sided	Traditional deco frame	20¾	100¾
	4-sided with sill bottom	Traditional deco frame	18½	98¾

**NOTE:** Minimum leg height is 13" on arch top and angle top panels.

### How To Make a Template

#### Template Requirements

Templates are only **required** for the following instances:

- Sunburst arches: if ordered height exceeds 54% of ordered width
- Arch top panels: if ordered height minus leg height is over 54% of ordered width

Templates are recommended for the following instances:

- Inside mount arches (direct mount, hang strip, frameless)

#### ALL OTHER ARCHES DO NOT NEED TEMPLATES.

#### Template Material

**Acceptable material**—Kraft paper, butcher paper, and light-weight poster paper that can be rolled without creasing.

**Nonacceptable material**—Newspaper, wrapping paper, tissue paper, fabrics, wood, cardboard, and wax paper.

If material used to make template tears, stretches, will not lay flat, or cannot be rolled, Springs Window Fashions will refuse to use the template and require a new one.

If more than one piece of paper must be used, a strong packing tape must hold pieces together. Painter's tape or scotch tape will not be accepted; this allows the paper to move and measurements to become inaccurate.

#### Creating the Template

1. Using painter's tape, tape paper over window opening, allowing adequate overlap over window to include any framing needed.
  - If window opening frame is being ordered, draw an exact outline of the window opening; manufacturing will make proper deductions for fit; be careful not to press in or crease the paper of the template while tracing.
  - If frame-to-frame arch or frameless arch is being ordered, the template should be made to the exact size needed; manufacturing will not take any deductions or make any additions to the size submitted. Tracing arch should only be done with a pencil or pen that is no thicker than  $1/16$ " thick to ensure correct arch size is ordered.
2. Remove the paper from the window and cut out the arch.
3. Fold template in half to verify template is symmetrical (mirror image). You may need to adjust size in field before shipping to Springs Window Fashions.
4. Once template is cut out, adjustments have been made, and template is symmetrical, place template back in window to ensure proper fit.
5. Mark template with the following:
  - Room side
  - SWF order number
  - Company name and account number
  - PO number
6. Attach a copy of the purchase order to the template.
7. Roll (DO NOT FOLD!) template and place in a shipping tube.
8. Mail to:
 

Springes Window Fashions, LLC  
 Attn: Specialty Dept. or Attn: Custom Color  
 8467 Rt. 405 South  
 PO Box 500  
 Montgomery, PA 17752

**NOTE:** Use only tape that will not pull off paint or wallpaper.

Comment on purchase order if a template is being sent; otherwise order may begin to be processed without.

## Specialty Styles

### French Door Options

- 2½" and 3½" louvers
- Available with Front Tilt (1-way and 2-way closure), Hide-A-Tilt™ 2-way closure, and Split Tilt
- Single panels hinged on the same side as the door
- 2" Standard L-frame only
- Order frame-to-frame
- Outside mount only

**NOTE:** All French door shutters for cut-out and no cut-out should be ordered at the same time to ensure rail sizes and louver counts will match.

Projection Based on Louver Size (inches)	Frame	Buildout (inches)
2½	2" L-Frame	0
3½	2" L-Frame	½

- A divider rail is required for ordered height greater than 74"
- Button catches plus magnets are standard to provide for a secure closure
- Factory will automatically add and attach buildouts based on your louver size; see chart below
- Split tilt may have +/- 2" tolerance from ordered location
- Hidden tilt requires split tilt over 52" ordered height

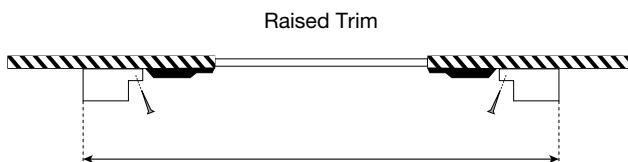
Manufacturing will automatically add buildouts to your order according to the louver size. An additional ½" or 1" can also be requested if needed for louver clearance on larger trims. Factory will also make all adjustments to back plate elevation based on trim projection and extra buildout requested.

### French Door Sizes: Minimum and Maximum

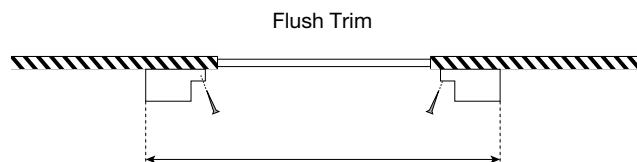
	Minimum (inches)	Maximum (inches)
Width	14	29½
Height	34½	86¼

### French Door Shutters: Placement of L-Frame

L-frame always sits outside of the trim, never on the trim. If no raised trim, place the L-frame far enough beyond the glass to rest totally flat on the door and to avoid risk of breaking the glass when driving the mounting screws in place. Use caution when placing screws, as the glass often extends under the trim and could easily crack.



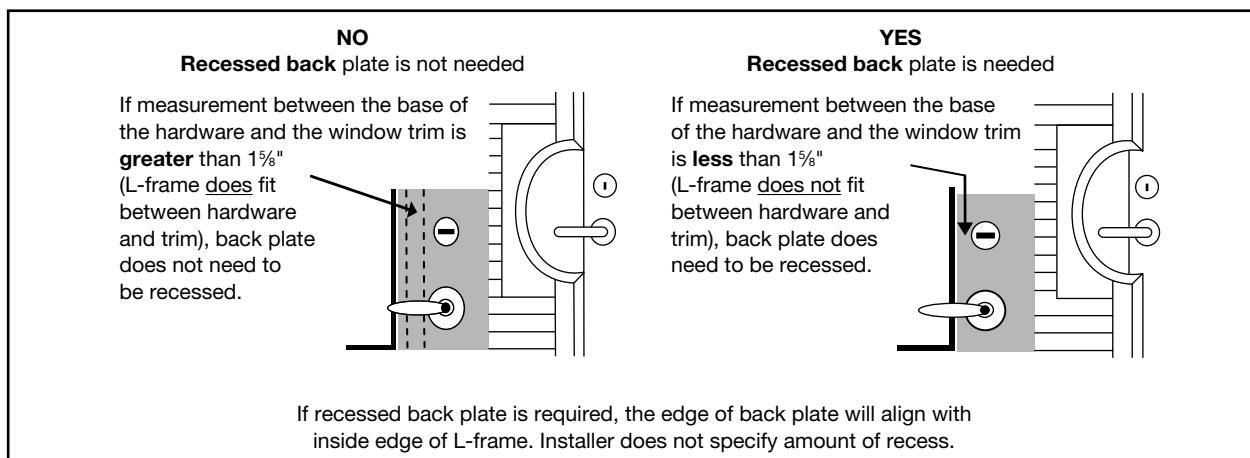
Always Use **Frame-To-Frame Measure Format** for French Doors



Always Use **Frame-To-Frame Measure Format** for French Doors

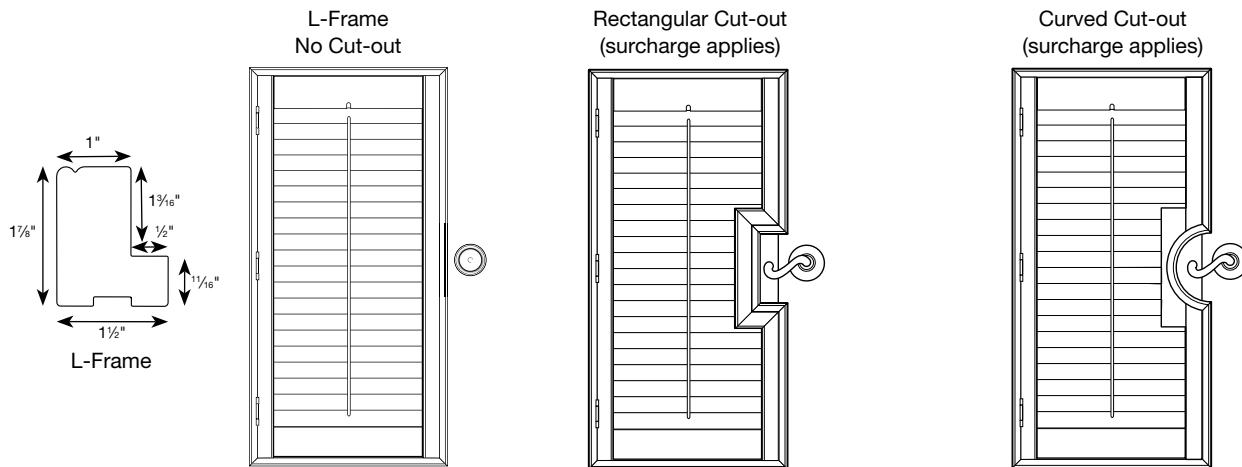
### French Door Shutters: Recessed Back Plate

A recessed back plate is required when there is insufficient space between the base of the door hardware and the glass trim to place L-frame flat on the door surface.



## Specialty Styles

### French Door Options: Cut-out



This should only be ordered when installed next to a French door with cut-out; otherwise order it as a standard shutter.

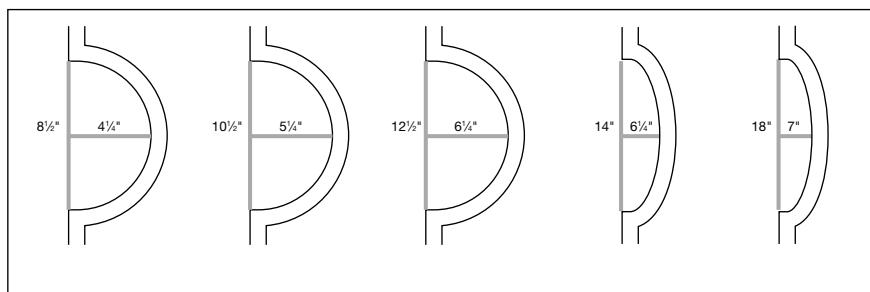
**NOTE:** If ordered as standard shutter, French door button catch can be added at time of order.

#### Order Rectangular Cut-out when:

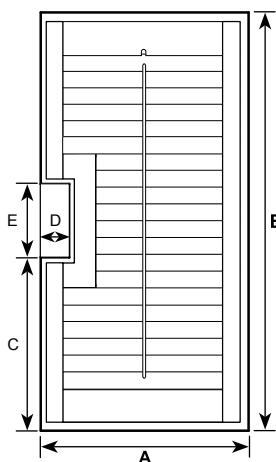
1. Choose if the base of the door hardware is rectangular.
2. Must specify width and height of the cut-out. There are NO set standard sizes to conform to. There are NO templates to use.
3. Be sure to make proper allowances for the door handle to pivot easily when determining your cut-out size.

#### Order a Curved Cut-out when:

1. Choose a curved cut-out if the base of the door handle (or knob) is round.
2. Five (5) standard cut-out sizes are available: three (3) half-circles and two (2) half-ovals.
3. Other custom sizes of curved cut-outs are NOT available.
4. Be sure to make proper allowances for the door handle to pivot easily when determining your cut-out size.

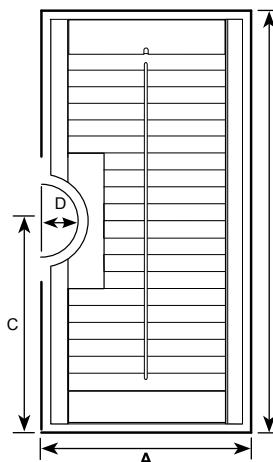


This image is taken from the backside of the French door order form.



#### Rectangular Cut-out

**A** = Shutter width—frame-to-frame  
**B** = Shutter height—frame-to-frame  
**C** = Bottom of shutter frame to **bottom** of cut-out  
**D** = Width of cut-out  
**E** = Height of cut-out



#### Curved Cut-out

**A** = Shutter width—frame-to-frame  
**B** = Shutter height—frame-to-frame  
**C** = Bottom of shutter frame to **center** of cut-out  
**D** = Width of cut-out

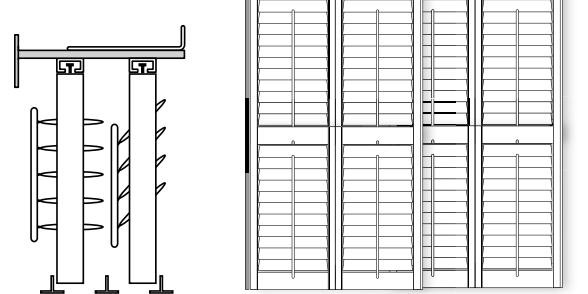
**NOTE:** Laminated template is available to help size curved cut-out (contact customer service to request).

## Specialty Styles

### Bypass Shutters

- Ideal solution for large windows and patio doors
- System consists of a double-top track and optional floor guides (no bottom track)
- Available in all louver sizes
- Available with Front Tilt (1-way and 2-way closure), Hide-A-Tilt™ (1-way and 2-way closure), and Split Tilt
- See the minimum and maximum order sizes charts (factory to determine panel size based on width ordered and configuration)
- Panels are composite
- Headers, box-out, and valance made of wood and painted to match shutter color ordered
- Divider rail on 2½" and 3½" louvers will be exact to ordered size; divider rail on 4½" louvers will have a 2" tolerance
- Divider rail required if over 72" ordered height
- Tracks wider than 144" will be spliced
- Header and valance could be spliced over 96"
- ½" buildout is available
- Split tilt and divider rail not available together on same shutter

- Configuration options:
  - Outside mount—with or without box-out (box-out recommended)
  - Exact frame-to-frame with box-out
  - Inside mount—minimum window depth 5½"
- All mounting options include:
  - Valances: two top treatment styles available:
    - 5" double beaded standard valance,
    - 4½" decorative valance (optional)
  - Track and header board: unit includes two tracks installed to header; header is 5½" deep and ¾" thick
  - Outside mount is available with stack back or custom header (see "Bypass Track System Stack Back Option" and "Custom Header" sections)

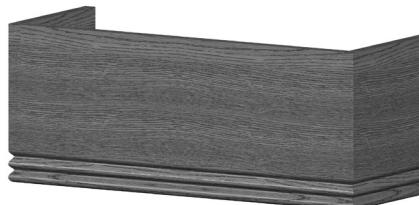


**NOTE:** Louvers must be closed in order for panels to pass each other.

### Bypass Valance Options



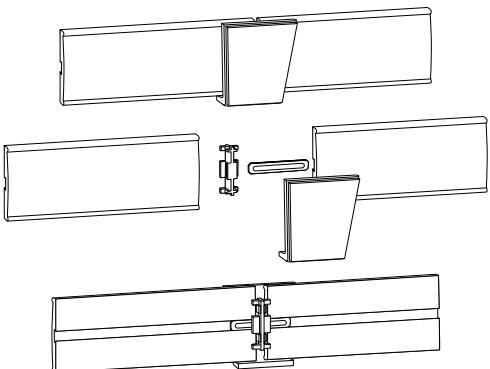
4½" Decorative Valance



5" Standard Valance

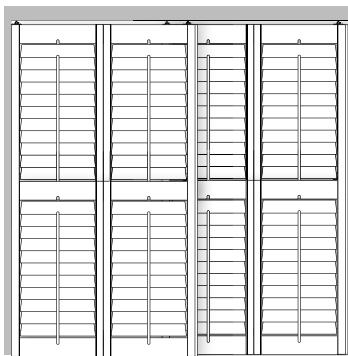
### Valance Keystones

- Decorative keystones are automatically provided on wood valances that require splicing
- Keystones are centered/equally spaced unless special splice location is requested at time of order
- Optional keystones can be ordered with single piece valances under 96"; for surcharge, see price charts
- Maximum number of keystones per valance is three
- Keystones are painted to match shutter color ordered
- Measuring instructions:
  - For inside/outside/exact ordering—indicate keystone measurement from left of window opening to center of keystone; manufacturing will calculate valance and keystone location to ensure correct location when installed in window
  - For special valance width ordering—provide exact valance backside measurement needed; measure using inside measurement from inside corner of miter to center of keystone; keystone locations will be exact



## Specialty Styles

### Bypass Shutters: Mounting Options



#### OUTSIDE MOUNT—WITH FACTORY ADDITIONS

**Width Measure (with box-out):** If no window trim: measure window opening size. If window trim: measure outside edge of trim to outside edge of trim and record as window opening size. **Regardless of ordered size, factory will add 3¼" to your overall ordered width.**

**NOTE:** When measuring, add more for bullnose drywall so that the frames mount completely on flat surface.

**Width Measure (without box-out):** If no window trim: measure window opening size. If window trim: measure outside edge of trim to outside edge of trim and record as window opening size. **Regardless of ordered size, factory will add 1¼" to your overall ordered width.**

**NOTE:** When measuring, add more to extend beyond window edge for more privacy.

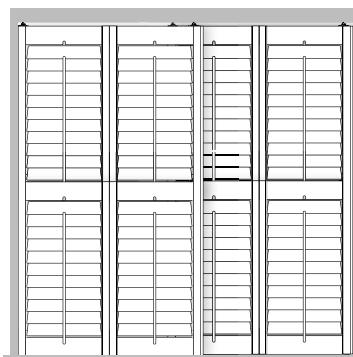
**Height Measure (with or without box-out):** If no window trim: measure from floor surface to top of the window opening. If window trim: measure to top of window trim. **Regardless of ordered size, factory will add 2⅜" to your overall ordered height.**

**Other Measuring Considerations:** ½" buildout is available.

**Valance Information:** Valance returns are included and wrap around the outside of the box-out, if ordered. Returns are mitered (special valance width and return width available).

**Box-Out Information:** Optional side frames are 5½" deep and ¾" thick.

**Stack Back Information:** Optional to allow shutter panels to clear the window opening; factory will calculate based on ordered size. Custom/special header board size is also available if full stack back cannot be achieved.



#### OUTSIDE MOUNT—EXACT FRAME-TO-FRAME

**Width and Height Measure:** Factory will not add or deduct from ordered size—measure width and height as finished frame-to-frame size including the box-out. Only available with box-out.

**Other Measuring Considerations:** ½" buildout is available.

**Valance Information:** Valance returns are included and wrap around the outside of the box. Returns are mitered (special valance width and return width available).

**Box-Out Information:** Required box-out side frames are 5½" deep and ¾" thick.

**Stack Back Information:** Stack back is not available. Custom/special header board size is available.

#### INSIDE MOUNT—WITH FACTORY DEDUCTIONS

**Width Measure:** Order window opening width and factory will make a ½" deduction off the track for proper fit.

**Height Measure:** Order window opening height and factory will make a ½" deduction. The carriers are adjustable.

**Other Measuring Information:** Minimum window depth required for 5¾". No buildouts available.

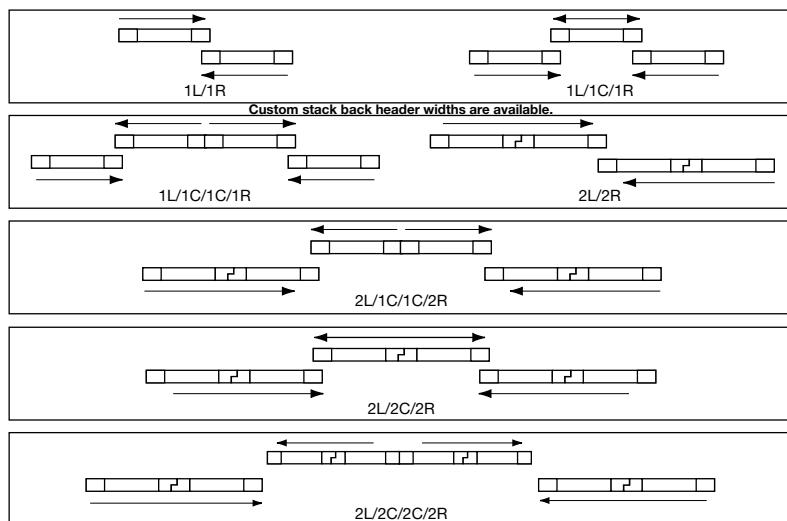
**Valance Information:** Special valance width available. Valance returns and special return width available.

**Box-Out Information:** Not available.

**Stack Back Information:** Stack back and custom/special header board size are not available.

## Specialty Styles

### Bypass Track System Configuration Options (only configurations available)



### Bypass Shutters: Minimum and Maximum Width (order size by panel configuration)

Panel Configuration	Example of Shutter Unit Configurations Using Various Panel Combinations	Outside Mount with Additions		Inside Mount		Outside Mount—Exact	
		Order WO Size		Order WO Size		Exact Frame-to-Frame	
		Minimum Width (inches)	Maximum Width (inches)	Minimum Width (inches)	Maximum Width (inches)	Minimum Width (inches)	Maximum Width (inches)
1L/1R		18	70	20	71	19 1/4	73 1/4
1L/1C/1R*		27 1/2	104	28 1/2	106 1/2	27 3/4	108 1/4
1L/1C/1C/1R		37	141	38	142	36 1/4	144 1/4
2L/2R		37 3/4	141 1/4	38 3/4	142 1/4	36	145
2L/1C/1C/2R*		56	212	58 1/8	213	54 1/4	215 1/4
2L/2C/2R*		57 1/8	213 1/8	58 1/8	213 1/4	54 1/4"	215 1/2
2L/2C/2C/2R		76 1/2	284 1/2	77 1/2	285 1/2	71 13/16	287 1/4

\*Window opening is 33% with these panel configurations.  
Stack back or custom header recommended.

#### NOTES:

1. Same minimum/maximum sizes apply if ordered with stack back options and with or without box-out.
2. Combinations with a 2C, 2L, or 2R will be rabbeted together and move as one unit. Panels to be connected during installation.

#### Composite Bypass Height Minimum and Maximum

Options	Minimum (inches)	Maximum (inches)
Outside Mount	15 5/8	96 3/8
Inside Mount	17 1/4	99
Exact	17 1/4	99

#### Setting Bracket Height

(for outside mount without side frames)

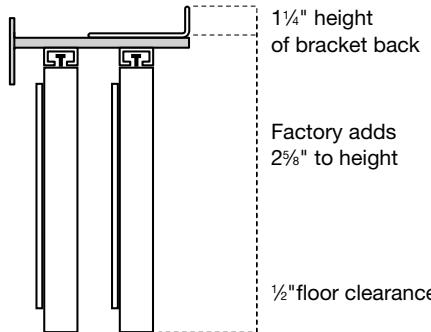
#### For wall mount bypass shutter system

##### Top of angle bracket to floor:

Top of bracket will be 3 7/8" above ordered height.

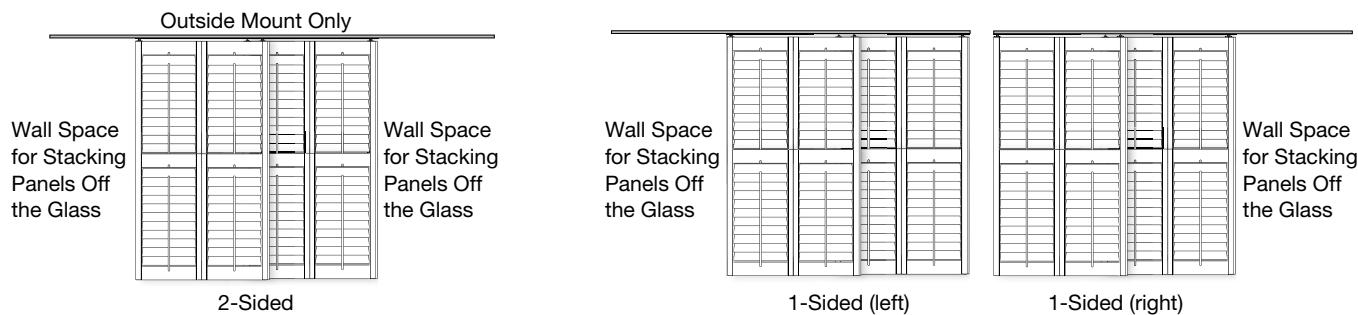
This includes 1/2" clearance off the floor.

**NOTE:** With optional box-out, side frames determine the mounting height.  
Bottom edge of side frame is meant to touch the floor surface.



## Specialty Styles

### Bypass Track System Stack Back Option



The stack back option allows for the shutter panels to clear the window opening, creating an unobstructed view. **Panels made to cover window. Header/track made larger so panels stack off glass.**

Measure only the window opening area for outside mount with stack back. Factory will calculate the correct stack back needed for full stack back. Custom header also available.

System consists of a double-top track and floor guides.

**Calculating Approximate Stack Back:** Factory will add additional width to ordered size for stack back. Amounts vary depending on the number of panels. See chart below for total (approximate) amount that will be added to the window opening size. This determines the approximate overall unit width.

% of Window Opening Size Added for Various Numbers of Panels				
2	3	4	6	8
50%	66%	50%	66%	50%

### Custom Header

If wall space is not available for complete stack back, custom header size may be ordered. Give window opening size and custom header size.

- Panels will be built to cover the window opening size
- The track, header, and valance will be built to the custom size requested

**ORDER ENTRY TIP:** Enter the opening size as the ordered width. Choose "no" for stack back and then place desired finished size in the custom header field.

## General Information

### Definitions

**Aligning Catch**—Concealed magnet and catch plate on back top side of café panels. Used to provide a flush panel alignment.

**Astragal**—Covers clearance gap between two panels for the purpose of eliminating light gap. Integral to stile.

**Bifold**—Two panels are hinged together to lie flush against the window or wall.

**Box-Out Frame**—Track system frame option that creates an outside mount application consisting of a three-sided frame with or without a decorative valance.

**Buildout**—Used in conjunction with frames to move panels away from window, allowing additional clearance for louvers to open.

**Bypass Track System**—Two or more panels on two-overhead track that slide and pass each other.

**Café Style Shutters**—Cover the lower portion of an opening. They can be made to any height within product specifications.

**Direct Mount**—Mounting the shutter panels directly to the window casing.

**Divider Rail**—A rail that divides the shutter panel into two horizontal sections. It is used to add strength to a tall panel or add a decorative touch.

**Double Hung**—One set of panels installed over top of another set of panels within one framed window opening. Can be combined with a horizontal T-post if needed.

**Guide**—Component part used with bypass configurations to lead the panels so that they do not project into the room.

**Hang Strip**—The mounting frame that is used for inside mount shutter panels.

**Inside Mount**—A shutter that is mounted on the inside of an opening.

**Light Block**—Square rail that blocks light between the window sill and the shutter panel. Used with direct mount, hang strip, 2-sided frames, and 3-sided frames.

**Louvers**—The movable fins inside the shutter panel.

**Mouse Hole**—Recess in the top rail of the panel that the lift rod rests in when the louvers are completely closed. Standard is single mouse hole.

**Outside Mount**—A shutter that is mounted on the outside of an opening.

**Panel**—The part of the shutter that consists of a set of louvers, two rails, and two stiles.

**Rabbet Stile**—A special cut on the stiles that allows the panels to overlap. Helps control light penetration between the panels.

**Rails**—The top and bottom solid portions of a panel that frame the louvers.

**Reinforced Louvers**—Louvers which are strengthened by an aluminum support bar running through the center of the louver to prevent sag.

**Sill Cap**—Decorative wood sill used to cover existing sills that protrude from window.

**Split Tilt**—Divides louvers into two operable sections by attaching two separate tilt bars.

**Square Window**—Diagonal measurements must be within  $\frac{1}{4}$ " difference. Windows that are not square will need to have the shutter mounted to the outside of the window opening.

**Stack Back**—Configuration that allows the panels of the bypass track system to completely slide beyond the window opening.

**Stile**—The vertical portion of the panel frame to which the louvers are anchored.

**Tilt Bar**—A vertically mounted bar located on the front of the shutter. Not used to tilt the louvers, but is attached so all louvers connect together and move in unison when a louver is moved.

**T-Post**—A vertical post that divides the shutter into multiple sections (used with wider shutters). Also used horizontally to separate panels on double hung shutters.

**Two-Way Closure (Front Tilt)**—Recess on the top and bottom rail allowing for the louvers to be completely closed in either direction. Close in upward position for optimal closure.

**Window Depth**—The distance from the surface of the wall to the closest part of the window (examples: latch, crank, frame, etc.).

### Care Instructions

Occasional light vacuuming with a brush attachment should keep shutters clean. More severe soiling can be removed by using a soft cloth along with a mild detergent and water solution.

# GRABER

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(7/22) 22-347500

#### Composite Shutters Pricing:

##### STANDARD SHUTTER PRICING BY FRAME TYPE

Frame Type	Price (per square foot)
Hang Strip, Direct Mount	62.30 per square foot
L-Frame, Deco Frame, Z-Frames, Tilt-Out Z-Frame	66.90 per square foot
Bypass Track System	69.00 per square foot

##### Additional Surcharges

Astragal	No charge
Bypass Box-Out**	15%
Bypass Decorative Valance	No charge
Bypass Stack Back**	5%
Café Aligning Catch	No charge
Café Shutter with 4-Sided Frame	10%
Double Hung	15%
Hide-A-Tilt™ Bar	10%
Stainless Steel Hinge	5%
Valance Keystones (when requested without a splice)	22
Wood Sill Cap	10%

\*\* Calculate overall square footage of the bypass panels, multiply by the per square foot price based on frame type, and use that total to calculate the surcharge for the box-out and/or stack back.

#### Composite Shutters Colors

Base White	2051
Creamy White	2729
Silk White	2922